

# MOTOR AGE

## WORLD'S RACERS GO THROUGH CHICAGO



CHICAGO, March 4.—For a week now Chicago has been headquarters for all the news concerning the New York-Paris race. Here have originated the protests, the sensational developments of the contest, banquets to the contestants and the like. To this fountain-head have come stories of the struggles through the snows of Indiana, the exorbitant charges made by the Hoosiers for assistance rendered the racers and here the contestants got what might be called their last glimpse of civilization for some time, for west of this city there will be no easy traveling—just a pushing onward with the idea of getting to Seattle in time to catch that boat March 10.

At present it is hard to get a definite line on the race. Tomorrow is the date set for shipping the cars by train in order to make Seattle by the 10th. But no one seems to know positively whether or not this will be done. Montague Roberts in the Thomas Flyer says he is going to drive overland to San Francisco if he misses a dozen boats. The Zust and de Dion are somewhere in Nebraska and what their intentions are cannot be ascertained. The Motobloc and Protos people are here now, but they fear to ship tomorrow, de-

BANTA'S LOCOMOBILE PILOTING ZUST AND DE DION FROM HOBART TO CHICAGO

claring they may be disqualified for not traveling farther than Chicago.

Since last Wednesday there has been plenty of excitement in connection with the race. The banquet of the Chicago Automobile Club last Thursday night brought out the announcement from Capt. Hensen that he had been dropped from the de Dion crew, his place being taken by Emanuel Lascars, a local Frenchman who is a member of the Chicago Motor Club. Following

this announcement Capt. Hensen went to Buffalo and there contracted to go with the Thomas the rest of the journey. He left Chicago last night by train to join Roberts. As if this were not enough to start the tongues wagging, there came a formal protest from the Italians against the Thomas. This brought forth a reply from E. R. Thomas himself and also a hot shot from C. A. Coey, who offered affidavits from Hensen in which it was asserted Paul



MORA, WEATHER-BEATEN AND MUDDY

Picard of the Chicago Motor Club had misdirected the Thomas at Michigan City, causing it to lose 36 hours. Picard then came out with a strong denial.

All of this, of course, kept everyone excited and the papers teemed with the scandals. Now, however, as the principals in the affair are fading away into the west the motoring world is gradually forgetting these unpleasant features and is watching the progress of the Thomas, de Dion and Züst with real interest. The west is showing more enthusiasm than did the east and

so far the leaders have been given the glad hand all the way from Chicago.

Last Thursday saw the Thomas, de Dion and Züst in Chicago, the American car anxious to push forward, but being held back for the banquet that evening. The Züst was in the repair shop, but the de Dion was in excellent condition, it being stated that the bonnet had not been raised from New York to Chicago. The banquet that night brought out a big attendance and the racers were given a warm reception. The Hensen announcement brought about an awkward pause in the festivities, but it was soon forgotten by the banqueters. The next day the Thomas made its getaway and the start was made the occasion of a large turnout of the curious, Plymouth court being packed. The foreigners decided to wait another day. Hardly had Roberts hit the trail than St. Chaffray produced the protest that had been made by the Italians. It had to do with the stop at Buffalo and the progress of the cars through Indiana, the paper reading as follows:

We, the undersigned contestants in the New York to Paris automobile race, do hereby protest the actions of the Thomas car and state:

First—That we saw the Thomas car leave Times square, New York, on February 12, 1908, in company with our cars, but with low clearance and other marked characteristics that were so materially changed after that car had arrived in Buffalo and had been placed in the Thomas factory that it is now virtually another car. The car has changed.

Second—That on the trip from New York to Chicago the Thomas car was at various times towed, its motor remaining stationary. Between South Bend and Michigan City, where sixteen horses were employed to help the car through, the motor was stopped for 2 days of the journey and the cooler removed from the car.

Third—That the Thomas car was towed through a certain section of Indiana by a trolley car over the tracks of the Interurban Street Railway Co.

Fourth—That the Thomas car used the railroad tracks between certain points on its way from Michigan City to Chicago. The other contestants have taken the roads.

Fifth—That the Thomas car was put on sledges at certain places and did not use its wheels.

Therefore, be it resolved, that we protest the actions of the Thomas car and singly and collectively can no more consider the Thomas car on the same footing as the other contestants in the New York to Paris contest.

This protest brought a reply from President E. R. Thomas of the company making the American car, in which he said:

The following is an extract from the rules made by the contestants at New York, and furnished us by the New York Times:

"That the same car shall go through from New York to Paris.

"That substitution of parts may be made when necessary.

"That as far as possible all the cars shall proceed by the route outlined under their own power, but that assistance may be secured when essential to extricate a car from difficulties."

We certify most positively that the marked characteristics of the Thomas stock car were not changed, and that all of the mechanical parts on the car are regular stock parts, and have not been strengthened to meet the awful road conditions, and we open the doors of our factory for investigation.

The Thomas car was towed from impassable conditions, and so were the Züst and de Dion cars, the latter without engines running.

The race has not been one-sided. Our contestants have received much more assistance from competitors than was given us, and in one case we were deliberately misled into a bad road.

We regret a controversy.

The foreign competitors have enjoyed great hospitality from the American people, in which we endeavored to participate by subjecting the Thomas car to several times the strain and the Thomas drivers to several times the hardships to lead and break the awful roads for them, which was done nearly all the way from New York to Chicago, but as the courtesy was not appreciated, we have now left them many miles behind.

Before the Thomas answer came the foreigners had departed from Chicago, leaving Saturday. That morning the de Dion crew was invited to the headquarters of the Chicago Motor Club in the New Southern hotel, and there Lascares was presented with a club banner by President F. C. Donald on behalf of the organization. St. Chaffray made the response, and the Frenchmen promised to carry the flag through the race and plant it in Paris. From the New Southern the racers proceeded to the Chicago Automobile Club, the official starting point, where it required a squad of mounted police to keep

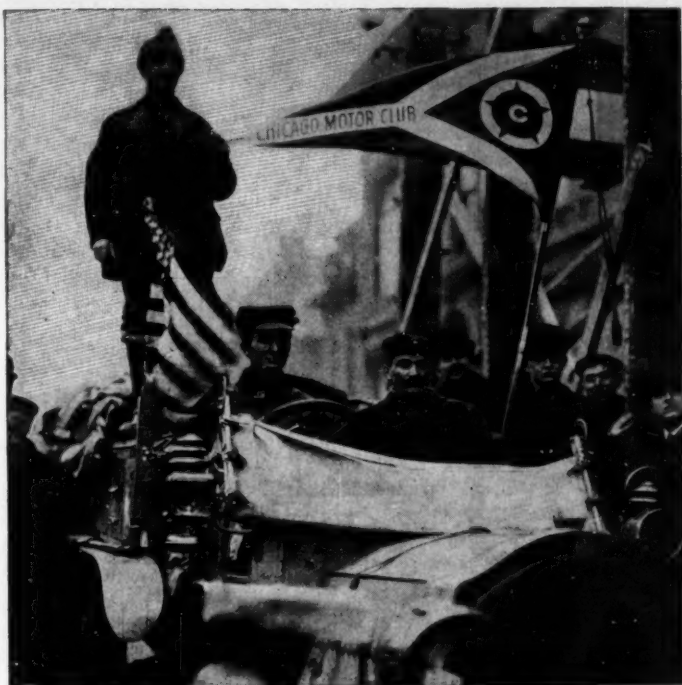


MOTOBLOC RUNNING THROUGH HOBBART



SNOW INCIDENT—MOTOBLOC RUNS INTO A DRIFT





LASCARES AND CHICAGO MOTOR CLUB FLAG



DE DION AND ZUST STARTING FROM CHICAGO

the crowd off the streets. Even at that it was hard work for the foreigners, preceded by the Gearless, which had accompanied the Zust from Rochester, and which acted as pilot out of town, as did Charles W. Price in the American roadster for the Thomas, to get under way.

That night Coey came out with his Hensen story, in which it was asserted Picard had misdirected him. Picard, though, declares this to be untrue, saying: "I was in Michigan City with my car to pilot the French and Italian racers to Chicago. When I was notified that the Thomas car was a few miles outside of Michigan City I rode 3 miles out, waited and brought the Americans safely into town. Not being on speaking terms with Mr. Coey, I did not address him at all, had no idea that they expected to leave that same night, was not asked what road they should take, and did not furnish any information whatsoever, directly or indirectly. The only relation I had with the Thomas people was to relieve their temporary embarrassment by loaning them some funds to pay the farmers who hauled them into town. I only mention this fact to show that I did all I could to help as best I could."

With the Thomas, de Dion and Zust speeded on their way west, the Chicagoans turned their attention the other way and awaited news of the Motobloc and the Protos, which were having a stormy passage through Indiana, beset on one side by snowdrifts, which looked like young mountains, and on the other by greedy farmers—the "peasantry," the Motoblocites called them. This avarice on the part of the rural gentlemen produced from the crews of the two cars a protest to the New York Times, in which it was asserted the foreigners were being made

to pay as much as \$5 a head for the privilege of sleeping six in a room, that big fees were demanded for towing and that if something were not done there would be a financial crash. So greedy did the Hoosiers become that it is stated the Motoblocites were chased by a constable trying to collect a bill for one of his constituents. It is claimed, though, the bill was not a just one, it being filed by a disappointed farmer who had been hired to do some towing, but was so slow getting around with his rig that another fellow got the job.

Finally, after all this wrangling, the two cars got within gunshot of Chicago. They reached Michigan City and then it seemed easy sledding into this place. But there's many a slip, etc. The Protos was ahead of its rival, but at Chesterton, Ind., yesterday morning its steering gear was smashed while it was being towed and while Koeppen was in Chicago having the repair made, the Motobloc slipped by and beat its rival here, coming in yesterday from McCool. It had hard work getting in, too, for Pilot Banta and the Locomobile missed the Frenchman at Hobart and the foreigners came in unescorted, finding their way to the Chicago Automobile Club after a little worry. The Protos came in tonight, after an all day's journey from Chesterton, just a few hours' ride under ordinary circumstances.

With the Protos and Motobloc for several days has been the Mora, the famous sealed bonnet car which Jess Draper sent on a New York-Chicago demonstration stunt with the old seals still on the bonnet. The Mora people did what they could do help the foreigners and their assistance was greatly appreciated by the travelers.

While all this excitement has been going on, the Studebaker roadster has been fight-

ing its way to Fort Leavenworth, Kan., with a message from General Grant. Leaving New York 2 weeks ago yesterday and Chicago last Thursday, the sturdy car has been forcing its way through the west as becomes a military hero. At 9:35 o'clock this morning the Chicago branch heard the car had reached Goffs, Kan.

#### Dangers of the Long Race

When Bourcier St. Chaffray was arranging some of the details of the New York-Paris race in his office in Paris full knowledge was in his possession regarding the



ZUST CAR AT HOBART, IND.



THOMAS AND ITS PILOT, THE AMERICAN ROADSTER, LEAVING CHICAGO

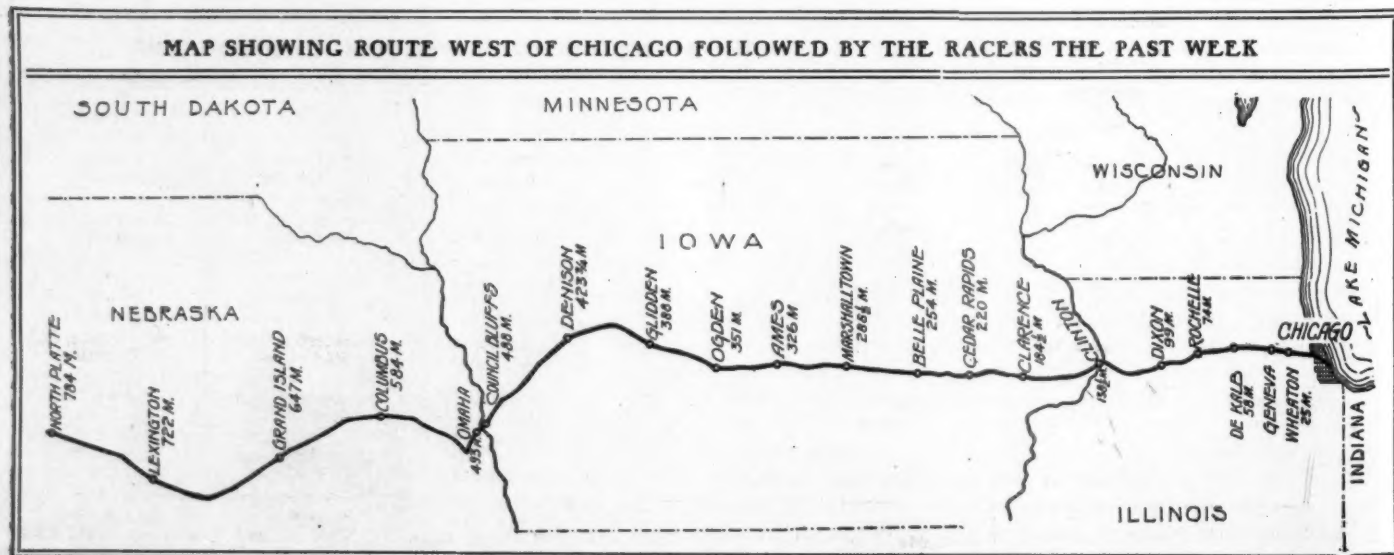
dangers of the Siberian part of the journey, even if the majority of the contestants were ignorant of the dangers of traveling on ice in the region of the Arctic circle or wending their ways over the endless tundras of Siberia. To all of the tourists the trip across Alaska has been considered the most dangerous leg in the long journey; not because of the great mileage but rather due to the uncertainty of the course. The drivers know they go a part of the distance across country until they strike the river, then go seaward on the ice to a point most favorable to making a short cut trip to Cape Prince of Wales. All of this course is uncertain; the drivers are not familiar with it; and although the settlers of Alaska have promised to do all in their power, the dangers

of this part of the race always have been uppermost in the minds of the tourists.

The trip across Behring straits can be made with comparative ease. Those who have followed the polar travels of Peary, Hansen and other Arctic heroes have talked about the rough ice of the straits over which motor cars could not possibly pass. Captain Hensen, who started with the de Dion car but has since allied himself with the Thomas crew, asserts that after an experience of 7 years within the Arctic circle he is certain rough ice does not exist on the straits. The prevailing winds this year have been from the west and consequently there have not been any northern flocks to pile the ice high in the straits. Should the east wind have prevailed the ice floes of the polar seas would

have been piled mountain-high in the straits and all possible progress would have been barred. In making the trip of the straits two guiding groups of islands are encountered which divide the distance into thirds. Over this part of the trip the car must travel by compass, which is attended with not a little trouble, owing to the deviation of the magnetic needle. The Russian government has provided tables of deviation which if followed will assure the safe arrival of the cars on the shores of Asia.

It must not be imagined that once the shores of Asia are reached the ice part of the voyage is at an end—far from it. Instead of entering Asia the course lies along the shore of the Arctic ocean to the mouth of the Lena river. This part of the trip is in reality an ice voyage of a few thousand miles, during which time the cars must travel by the compass. The difficulty of this is increased by the varying deviation of the needle which varies from 40 to 30, then drops to 20 and finally to 5 when the zone of a magnetic island lying east of the valley of the Lena river is approached. The tourist steering east by his compass from East cape, where he first strikes the shores of Asia after crossing the Behring straits, would be in reality heading direct for the north pole instead of skirting the north coast of Asia. It will be absolutely impossible for any of the drivers to make the trip in safety without full knowledge of these deviations. Not only is the amount of the deviation known, but it must also be known the exact places where deviations occur. There are stretches of 700 miles on this icy trip during which no habitations of any nature are encountered and then only little hut villages of half a dozen families. On this part of the trip there are no gasoline stations and the contestants will have to load all possible fuel on their cars before leaving Alaska. It will be a wise crew that will secure a sled that can be drawn behind the car on the ice and on which 500 gallons of gasoline can be car-





ried. The Russian government promised to take up the problem of establishing gasoline stations every 200 miles along the Arctic coast but the sparseness of population called for the abandonment of the scheme.

Once the mouth of the Lena river is reached the radiators of the cars will be turned southward and the next long leg of the journey will be on the ice down this river. This part of the trip will be accompanied with not a few difficulties to the tourist not familiar with the condition of the surrounding country as well as the treacheries of the river. This river at its mouth is over 7 miles wide, which enormous width is continued for some miles from its mouth; later it dwindles to 3 miles and carries this width for 1,000 miles southward into the heart of Siberia. After this distance it drops to a mile width and continues as a river of this dimension further southward than the racers will have to trust themselves to it. During the first stage of the southward trip on the Lena the tundras are on either side, stretching right and left in long, endless plains covered with a scrubby moss that has been their only foliage for centuries. For 8 months of the year they are frozen wastes over which even the polar bear disdains to tread, preferring the more chilly north ice fields within the circle. The tundra part of the Lena river trip is a safe one, however, as the ice is thick and there are no animals to molest or dispute the forward march of the cars. Once the tundras is left behind, the forest district of Siberia starts and with it comes the wolves.

Wolves have been the bugbear of Siberian travelers for years and their number is not diminishing; neither is their ferocity and persistency. In the Lena river district they travel in packs of 200 or more. When a pack comes upon a car the knowledge of wolf life as gained by years of experience in the Siberian tracts stands in good stead and is the only safe method to follow. To shoot is dangerous unless



STUDEBAKER MILITARY CAR BATTLING WITH THE SNOW

the traveler has access to a quick-firing gun or a little army. Arctic life has developed, however, a few simple devices that prove decidedly efficacious against the wolf pack. The simplest of these is the firing of sky rockets into the pursuing pack, which action invariably creates pandemonium in their ranks to such an extent that the discharge of three rockets has been sufficient to disperse a pack of a hundred or more, terrifying them to such an extent that they gave up the pursuit. Should skyrockets not be at hand a good electric searchlight is most suitable.

The wolves are afraid of a light and a searchlight turned on a pack will keep the leader at 100 paces or more behind the car. They will continue following at this distance for miles and days. Should the

searchlight give out the lives of the tourists would be in grave danger. To guard against such a possible contingency one of the cars has furnished itself with a hand-operated electric motor so in case it came to the worst and the motor of the car fails the searchlight can be kept going by hand. Still a third method has been successfully used to keep the wolves at bay, and which method attracts because of its simplicity. It consists in tying a rope 100 feet long—less will do—to the back of the car and letting it trail over the ice. The pack will not come nearer to the car than the end of the rope but will follow at that distance for a day or two. When using the rope the tying of a skin of some sort on the trailing end assists in frightening the wolves.

#### DAY BY DAY PROGRESS OF CARS IN GREAT WORLD'S RACE FROM NEW YORK TO PARIS

Date	De Dion	Motobloc	Sizaire	Zust	Protos	Thomas
Feb. 26.....	Chicago 1,043 miles	South Bend, Ind. 923 miles	Quit race at Red Hook, N. Y.	Chicago 1,043 miles	South Bend, Ind. 923 miles	Chicago 1,043 miles
Feb. 27.....	Chicago 1,043 miles	New Carlisle, Ind. 943 miles		Chicago 1,043 miles	New Carlisle, Ind. 943 miles	Rochelle, Ill. 1,118 miles
Feb. 28.....	Rochelle, Ill. 1,118 miles	Rolling Prairie, Ind. 948 miles		Rochelle, Ill. 1,118 miles	Michigan City, Ind. 968 miles	Clarence, Ia. 1,229 miles
Feb. 29.....	Calamus, Ia. 1,212 miles	Michigan City, Ind. 955 miles		Calamus, Ia. 1,212 miles	Chesterton, Ind. 978 miles	Belle Plaine, Ia. 1,297 miles
March 1.....	Cedar Rapids, Ia. 1,263 miles	McCool, Ind. 972 miles		Cedar Rapids, Ia. 1,263 miles	Chesterton, Ind. 978 miles	Ogden, Ia. 1,394 miles
March 2.....	Cedar Rapids, Ia. 1,263 miles	Chicago 1,043 miles		Ames, Ia. 1,369 miles	Chesterton, Ind. 978 miles	Logan, Ia. 1,501 miles
March 3.....		Chicago 1,043 miles		Boone, Ia., 8 a. m., 1,387 miles	Chicago 1,043 miles	Omaha, Neb. at noon, 1,536 miles

## FIAT CYCLONE STARS IN RACES AT ORMOND

ORMOND, Fla., March 4—Special Telegram—The annual meet at Ormond is now on and after 2 days of racing the motoring colony here is sanguine that, while some of the old stars are missing, the trip south has been well worth the while. Louis J. Bergdoll, driving a 60-horsepower Benz, won today's 125-mile invitation amateur race in 1 hour 53 minutes 30½ seconds, cutting his new record figure of yesterday. S. B. Stevens was second in the Fiat Cyclone, covering 95 miles in 1 hour 54 minutes 28 seconds after losing 29 minutes at Daytona waiting for a rocker arm to be brought from Ormond to replace a broken one. Stevens led with 41 minutes 37 seconds for 50 miles and 58 minutes 18 seconds for 70 miles, at which point he was 4 minutes 48 seconds ahead of the Benz. R. G. Kelsey, who was third, was last timed at 50 miles in 65 minutes 46 seconds. The race was run over a 50-mile circuit at the Daytona end over a beach in vastly improved condition. This race was in pleasing contrast to that of yesterday, when the Minneapolis cup event

touring car-across-country time, having run practically the entire distance on a bare rim. The second car was scored only up to the half-way mark and the third contestant just managed to round the first turn before it was stranded. The stock car race was equally uninteresting, the winning machine having a walkover and the runner-up being left 50 miles behind.

The 100-mile race for the Minneapolis cup had three starters, E. R. Hollander's 120-horsepower Fiat Cyclone, driven by Emanuel Cedrino; W. Gould Brokaw's 120-horsepower Christie, piloted by E. B. Blakely, and Harry Levey's 120-horsepower Hotchkiss with H. B. Shefts at the wheel. It was discovered that Paul Lacroix' Renault had broken a feed pipe the day before so the engine had to be taken down. R. W. Buckley's 110-horsepower B. L. M. could not start owing to its transmission being out of kilter.

In a furlong the Hotchkiss stopped through trouble with its clutch and the luckless Christie just managed to pass the 10-mile post when a valve broke and put

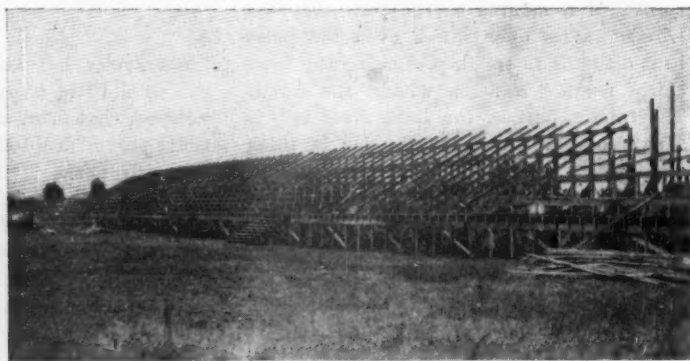
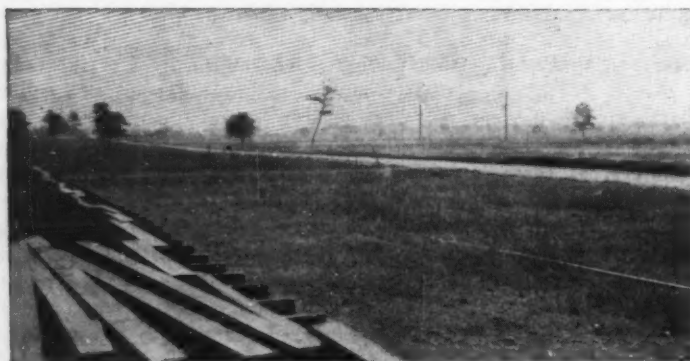
miles, 2 hours 10 minutes 38 seconds, and 150 miles, 2 hours 40 minutes 38 seconds. The figures for 125 and 150 miles, of course, establish new records for the beach, no previous races on the course having exceeded a century. The Cleveland was second with 1 hour 17 minutes 24 seconds for 50 and 2 hours 26 minutes 46 seconds for 100 miles. The Thomas was timed 43 minutes 6 seconds for 25 miles and not heard of later. The Allen-Kingston car was towed back with a cracked cylinder.

R. G. Kelsey was to have started in the stock car race with a Haynes runabout, but in practicing yesterday its crankshaft broke and could not be repaired.

Thanks to John McCarthy, of Boston, who good-naturedly made a transport all day of his Wayne, the scribes were carried to and from the clubhouse.

### Sunday at the Beach

Ormond, Fla., March 1—Though the past glories of the Ormond-Daytona beach meets, so far as big fields and multitudes of spectators go, will not be revived this year, at the present writing—at noon on



HOME STRETCH OF SAVANNAH COURSE AND GRAND STAND NOW BEING BUILT

was somewhat of a fizzle because of the lack of competition. The visitors believe that from now on the sport will improve and look forward to the long race for the A. C. A. cup, in which it is expected there will be a struggle which will stir up some of the old-time enthusiasm. The crowd from the north hoped for a continuance of the fine weather which has been enjoyed so far, believing if there is no change there is a chance for something doing in the record line later on in the week when the big racers are tuned up.

### Minneapolis Cup to Fiat

Ormond, Fla., March 3—Special telegram—Florida in all her tournament history never furnished more beautiful weather than today's and as big a gathering as ever of motor cars and spectators assembled at the clubhouse to witness the opening of the sixth annual beach meet. The outcome of the racing was the sorriest of disappointments. In the first and chief race of the day two of the meager quintet of contestants failed to face the starter owing to practice disasters. The winner limped across the line on three tires in

it out of the running. The Hotchkiss started again in a quarter of an hour and covered 25 miles in 47 minutes 28 seconds, and 50 miles in 77 minutes 51 seconds. The race was a walkover for the Fiat, and a limping walkover at that, for it lost a front tire after rounding the turn. It had twice been replaced, so nearly 90 miles was made on three tires and a rim. Its final time was 1 hour 50 minutes 20 seconds, as against Clifford Earp's record on the beach of 1 hour 15 minutes 40½ seconds. Its intermediate times were: 25 miles, 26 minutes 29½ seconds; 50 miles, 64 minutes 5 seconds; 75 miles, 85 minutes 5 seconds. The Fiat, besides capturing the cup, won the \$100 prize offered by Joseph Gilbert for a win on Continental tires.

Four entrants faced Starter Wagner's flag in the 150-mile stock car race—Louis J. Bergdoll, 60-horsepower Benz; E. W. Howard, 30-horsepower Allen-Kingston; James Loughlin, 40-horsepower Cleveland, and J. Carey, 70-horsepower Thomas. The Benz made a runaway of it, its times being: 50 miles, 61 minutes 2 seconds; 100 miles, 1 hour 47 minutes 31 seconds; 125

Sunday—indications point to a limited but high-class array of starters, with a probable minimum of six in each of the four long-distance races carded for the week. At least the Automobile Club of America can claim the credit for not letting the annual tournament go by the boards, and by hustling has gathered a sextet of racers likely to put up on the smooth beach new records for all distances at 100 miles and over. The array of fast ones already on hand is noteworthy. Walter Christie has his Big Bear with a 35-second mile record on the Atlantic City beach, and the 60-horsepower Christie he drove in the last Vanderbilt cup race. E. B. Blakely will pilot the former, and Christie himself will drive the latter. Cedrino is here with the Fiat Cyclone, built on grand prix lines, and Maurice Bernin with a new 60-horsepower Renault racer.

A new racing enthusiast, R. W. Buckley, of Brooklyn, shies his castor into the arena at this meet. He bought the 120-horsepower B. L. M., completed too late for the last Vanderbilt cup trials, and will drive it in the big race and the invi-



tation contest. He will also enter and drive his 70-horsepower Thomas runabout in the stock car race. Elliott F. Shephard's 120-horsepower Vanderbilt Hotchkiss, to be driven by F. B. Sheft, is en route, as is also a 60-horsepower Haynes, to be piloted by R. G. Kelsey. The former is nominated by Harry Levey, of New York. This about completes the list of probable starters or those likely to figure prominently in the big race. Other candidates for stock car, Minneapolis cup and invitation race honors are a 60-horsepower Benz, entered by Louis Bergdoll, of Philadelphia, which G. P. Parker will pilot; James Loughlin III's 30-horsepower Cleveland; Joseph W. Gilbert's 30-horsepower Packard and a Franklin entered by Mr. Stimson, of Jacksonville.

Ormond never put up a balmy line of weather than the present, but—alas!—the condition of the beach is most disappointing. Between Ormond and Daytona there are so many soft spots of red sand that it is probable some of the races, except perhaps the stock car contest, will be run over this end of the beach. South of Daytona, however, the beach is fairly good

## MORE TIME TO ENTER

### Savannah Decides To Accept Nominations to March 10—Sixteen Cars Named Now

Savannah, Ga., March 4—Special telegram—Action has been taken by the race committee of the Savannah Automobile Club which extends the time for entering the road carnival on March 18-19 until March 10. The lists were supposed to close last Sunday and while there were enough cars in sight to insure a good meet the committee decided to try for more. At the present time there are sixteen entries for the three events, with nine in the feature. However, there are several more that can be had, it is thought, so the lists are held open until next Tuesday. Those in at the present time are:

Event No. 1—Two Apperson Jackrabbits, two Isotta Fraschini, Lozier, American roadster; Acme, Imperial, Benz.

Event No. 2—Premier, Pennsylvania, Apperson, two Thomas-Detroit.

Event No. 3—Thomas six, Stearns six.

Meanwhile the Savannah authorities are working hard on the details of the ar-

still being received for accommodations on this train by Secretary Elliott, of the A. A. A. Among those who will journey on the special, which will be sent by the Seaboard Air Line on March 14 at 1:25 p. m., arriving at Savannah at noon Sunday, are: Jefferson de Mont Thompson, chairman racing board and honorary referee of the Savannah races; E. R. Thomas, president E. R. Thomas Motor Car Co., of Buffalo, and member of the racing board; L. R. Speare, first vice-president of the A. A. A., Boston; Stanford B. Haynes, ex-president of the Springfield, Mass., Automobile Club; A. G. Batchelder, member of the racing board and of the special Savannah committee; A. R. Pardington, member of the racing board and of the special Savannah committee; Frank G. Webb, Brooklyn, vice-chairman racing board and referee of the Savannah races; F. H. Elliott, secretary A. A. A. and member special Savannah committee; H. M. Swetland, New York.

Harding, with his Isotta, is already in Savannah. One Stearns car is here. The Apperson cars will be early on the course, Edgar Apperson having left on a fast train



NEW SHELL ROAD BUILT FOR SAVANNAH RACES AND A BANKED TURN

and likely to admit of new long-distance records by the very fast bunch of contenders at hand. It is likely that a 12½-mile stretch will be laid out and the races run in 25-mile circuits of 300, 150 and 100 miles. The committee and the contestants will meet at the club house this afternoon and decide upon the course and schedule.

The races will be conducted by Chairman Robert Lee Merrell, A. L. Riker, A. R. Whiting and S. B. Stevens. All but the last named are already here. They will be assisted by F. J. Wagner, as starter; George L. Weiss and Lieutenant P. A. Sayles as timers, and Secretary Sam Butler as indispensable man of all work.

Among the other racing enthusiasts here for the meet are Mr. and Mrs. Joseph M. Gilbert, Mrs. Riker, Mrs. Buckley, Mr. and Mrs. A. W. Church, E. R. Hollander, N. Lazarnick, W. A. Adriance, E. A. Perey, E. C. J. McShane, Harlan W. Whipple, A. R. Hawley, R. A. Field, Mr. and Mrs. W. R. Harrison, F. Ed Spooner and W. A. Rutz. The hotel is crowded, with a big overflow in the cottages in the grove.

rangements for the meeting. The grand stand framework is all up and the finishing touches will be put on it during the present week. The contract for oiling the course has been let to the Gulf Refining Co. for \$2,500 and the 18-mile course will be thoroughly oiled 2 weeks before the date of the race. The committees having in charge the placing of signs and the telephone and signal arrangement is hard at work. The program concession has been let to a New York man. Practically all the boxes have been disposed of, many parking spaces have been let and hotel accommodations have been taken almost to the limit.

Several tire companies have reserved camps on the course. Among those who have already located are the Michelin, Pennsylvania and Diamond companies, which have had men on the ground for several days. The party of New York and eastern motorists which chartered a car to go to Savannah has been steadily added to by applications until it has been found necessary to charter a second car—an observation coach. Applications are

from Pasadena, Cal., where he has been attending the hill-climb in which his car won the time honors. The Lozier training will be done around New York, as Michener cannot leave the metropolis for Savannah at this time.

### QUAKERS GIVE BIG BANQUET

Philadelphia, Pa., March 2—The big dining room of the Manufacturers' Club was crowded last Friday night, when the Automobile Club of Philadelphia gathered there to discuss its annual banquet. Among the guests of note who honored the club by their presence were Director of Public Safety Clay, Colgate Hoyt, president of the Automobile Club of America; John Bancroft, president of the Delaware Automobile Association; Osborn I. Yellott, president of the Maryland Automobile Association; H. Chadwick Hunter, of the Automobile Club of Washington, D. C.; Robert P. Hooper, vice-president of the Pennsylvania Motor Federation, and several others. S. Boyer Davis, secretary of the club, acted as toastmaster, and Mr. Clay represented the mayor.



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United States and Mexico, per year, \$3.00 Other countries including Canada, \$5.00



### FEDERAL AID IN ROAD BUILDING



**W**HEN such a far-reaching and powerful organization as the National Grange assumes the aggressive in advocating that the federal government should aid the states in the building of roads, then it would seem the day is near at hand when the construction of highways is to begin in earnest throughout the entire country. "No argument can be advanced in favor of the annual appropriations by congress on behalf of river and harbor improvements that does not apply even more strongly to the improvement of our public roads," contends the grange—1,000,000 strong—in resolutions unanimously adopted. Continues the resolving: "We favor the immediate enactment of legislation by congress making liberal federal appropriations for the improvement of the public highways of the country, these appropriations to be expended in such manner as congress may prescribe." Of course, all motorists will help the grange in its efforts to secure federal aid in this vital building of the roads, and here again comes into play the spreading national growth of the American Automobile Association, the good roads board of which, under the chairmanship of the energetic Hooper, is accomplishing much more than would appear to be the case on the surface. Those who sit in the legislative halls at Washington are becoming aware that motorists are watchful of measures which concern them, and this keenness of sight will continue until the desired things become realities. Once upon a time when the cyclists—100,000 strong—talked and argued for good roads from dawn to darkness, some attention was paid to their words, but not enough heed was given to accomplish anything very tangible. The persistent efforts were not wasted entirely, but the man who lives in the country is never as quickly convinced as is the urban dweller, and in this building of the roads the farmer pays his share of the cost only through the results of toil with profits won from the soil by the sweat of his brow. Economy is to him a necessity which teaches the value of every dollar expended, and, though he soon realized the advantages of roads deserving the name, the cost staggered him when the burden seemed to fall heaviest in his direction. But with the coming of substantial state aid he gladly came forward with his share of the money, and while progress in many states has been meager and tedious, the knowledge gained in the work of education is the basis for that unanimous support which is going to house bill No. 15,837. Once national roads are

built, there must come national supervision in their maintenance, for that has been the experience in those European countries where road building is rated a science of great worth to the welfare of the nation. Motor Age quotes from a letter that has just come to hand from Francis Miltoun, who is an American with a temporary residence in France, and who has just returned from a tour in Tunis and Algeria. Mr. Miltoun is a student of roads, and this is what he says on the care of national highways after they are built: "The point I make is that Tunis, only a quarter of a century old as a civilized country, and Algeria, barely three-quarters of a century old, can make good roads and keep them up efficiently. So can we, but they must be national roads, under national supervision. That's my slogan. Did you know that the famous Bath road in England is under the control of sixteen different authorities—from London to Bath—that is why it is good in some parts and bad in others. The route d'Antibes, from Paris practically to the Italian frontier, is under one administrative control, and that is why it is a good road all the way along. It is this same central control that one finds in Algeria and Tunis."

The story of central road control as stated is but another evidence of that infallible industrial axiom, that "every business must have its head." Where there are two or more heads dissension is bred, one part is aided at the expense of the other and vice versa. Good roads in America can be had as easily as they can in other lands by united effort.

### ANNOUNCEMENT

**I**N THE advance of the motor-driven vehicle there is much to be told; and the telling should be accurate, newsy and unbiased. This has been the successful effort of Motor Age in the past; there will be a conscientious continuation along these same lines. But coincident with the continuation there will be amplification of the story of the motor car, and the facilities at the command of the new administration insure a publication that will please and assist the owner, prove beneficial to the dealer, and aid the maker in the better distribution of his product. Our pages will speak for themselves, and we shall keep pace with the needs of the industry and reflect its progress adequately and interestingly.

### NEW JERSEY AND ITS MOTOR LAW



**N**OT only that which is equitable to all users of the highways should be asked in legislation by the motorists. But in contending for what is equitable the attitude of the motorists should be that of any class of citizens seeking something rightly belonging to them. There should be permitted to exist no assumption that any privileges are sought; all that is demanded—yes, demanded—are the inalienable rights referred to in the incomparable "Declaration of Independence," and "among these are life, liberty and the pursuit of happiness."

Because a just law is abused by the few, there should not follow as a sequence the imposition of drastic restrictions upon the many. There should be a thorough enforcement of the law as written; no substitution of something oppressive to all because the officers are lax in bringing offenders to the bar of justice.

That day is over when motorists will submit tamely to laws based on prejudice and unmistakably antagonistic to the most wonderful advance in transportation facilities that has come in centuries. There always will be those who, for one selfish reason or another, will clog the wheels of progress, but the handwriting on the wall is now so legible that only those who are purposely blind will not see that the motor-driven vehicle is entitled to a place on the public roads equal to that possessed by other occupants.

There is a lesson in the present situation in New Jersey, where the motorists have reached the conclusion of temporizing with politicians, and from this time on it is to be a fight in the open for "life, liberty, and the pursuit of—motoring—happiness." Accepting with mild and disorganized protest the gradually increasing restrictions of a law that has become longer unbearable, and with more obnoxious amendments now suggested by the vote-seeking Frelinghuysen, the Jersey men have reached the stage of open revolt. Now will come the quick perfection of delayed organization and the presentation of an unbroken front to the enemy. And when the enemy comprehend that the motorists have votes that command other votes, the revision of laws will be accomplished without undue delay. Here's success to the aroused Jerseyites, and may they succeed also in kicking a big hole in the "Chinese wall," referred to so scathingly by the plain-speaking president of the American Automobile Association on a recent occasion.





## CURRENT COMMENT



**S**KEPTICS are busy these days raising doubts as to the serious intentions of the contestants in the New York-Paris race, and few there are who believe a motor car will travel through Alaska and across Siberia in the present contest. The hardships already encountered by the plucky band have been such as would discourage anyone but a motorist, yet these racers plug along as cheerily as if they were being paid \$1 a mile instead of handing out such sums for tows to Indiana farmers. But leaving out of the question the probability of the race ever getting outside of this country, one must admit that crossing the American continent in February and March is in itself a feat of which any car manufacturer might well be proud if his product did it. There is no doubt but what the racers have left behind them a string of interested persons extending from New York city well into Nebraska and these are eagerly watching the progress of the race. Therefore, if for no other reason than it has brought motoring into the limelight, the race already has been of some good.

**I**T HAS been contended that small committees do the best work, but the fact the American Automobile Association sticks to its old policy of recognizing as many as possible in making up its boards for the ensuing year would seem to argue the other way. At first glance it might be thought to be a case of too many cooks spoiling a broth when somewhere near a

## The Week in Brief

All contestants in New York-Paris race reach Chicago, Thomas, Zust and de Dion continuing journey west and Protos and Motobloc resting in Windy City; stormy passage through Indiana.

Week of racing at Ormond begins, but fields lack the class of previous years and sport is comparatively tame; Minneapolis cup won by Fiat Cyclone.

France feels jubilant over large entry list in grand prix and volturette race and believes it will regain its supremacy in racing world by this means.

American Automobile Association announces makeup of touring, legislative and publications boards, which, as usual, are large ones.

Savannah extends time for closing entry list to March 10, although it already has in hand sixteen nominations for the three events.

Frayer-Miller is declared winner of the Long Island economy test, with Franklin second; nineteen cars in final reckoning.

Rules for Great Britain's big contests—the international touring car test and the Scottish trials—are published.

Work resumed at Columbia plant at Hartford, force of men getting busy on assembling 29-horsepower cars.

hundred people are named for one committee, but in so doing the national organization is enabled to cover the country thoroughly. Of course, it is manifestly impossible to hope ever to get many of one committee to a meeting, but often there is a time when a chairman wishes some work done in the outlying districts, so to speak, when by having a loyal A. A. A. man waiting to tackle the job much good is accomplished. Every name added to the roster means just one more man who is doing more than the average member's work for the advancement of the three A's.

**B**OSTON'S show opens Saturday and as usual it is going to be the largest of them all, even counting in the exhibitions in New York and Chicago. Boston marks the ending of the show season, too, outside of several minor efforts in the smaller cities, and at the same time it plays the role of groundhog, for weather history shows that gentle spring unusually comes along a few weeks after the Hub effort. Therefore, the motoring world has a double chance for being grateful, first, for seeing something truly fine in the show line, and, second, to begin to hope for a breaking up of winter.

**T**HAT European makers should take such a lively interest in road racing, as is shown by the large entry for the grand prix, is particularly gratifying in this country, where the manufacturers are just beginning to awaken to the advantages to be gained by putting their product in such contests. A year ago it looked as if Europe might cut out the racing game, but now it seems as if there is to be a revival of the sport which should prove a great stimulus to trade. If American makers will support the Savannah venture as it should be the same benefits can be derived in this country. The extending of the time for entering the Georgia races to March 10 will let in those who delayed their nominations after the regular time.

**I**NTERESTING comparisons may be made as a result of the recent economy run of the Long Island Automobile Club in which the Frayer-Miller carried off the chief honors. This air-cooler packed its five passengers 234 miles at the per capita cost of 71½ cents, which shows how really cheap motor car transportation is at the wholesale rate. There were nineteen cars in the final reckoning which transported 100 people and statistics show the average cost per head was \$1.11. It must be borne in mind, too, that four of the cars carried seven people and one was a limousine.

**O**RMOND is in progress this week, but it is not the Ormond of old. The press does not teem with stories of sensational speed on the beach, and the public is not invited to make comparisons between steam engines on smooth rails and space-devouring motor cars dashing over the Florida sands, for so far there has been no chance to do this. The racing, as might have been foretold by a glance at the entry list a week ago, is not of the extraordinary sort, and it would seem as if the week would pass into history without any upsets in the record table. It is with pleasure that the motoring public turns its eyes from Florida to Georgia in the hope the Savannahans will produce something to break the winter's ennui.

**T**HAT the competition season should open so early can be taken as a sign of a healthy growth of interest in the motoring game, and a forerunner of probably the most brilliant season the sport has yet known. Already there have been two large reliability runs, a fuel contest and a hill-climb, while the calendar for the rest of the year is a lengthy one. The most recent of big events was the hill-climb in California last Saturday, which produced more evidence of the all-round ability of the modern motor car when the star performer climbed the 1.4-mile hill at the rate of 52.4 miles an hour. Apparently the only stunt left undone is to devise a way of running through 10-foot snowdrifts without calling on the horses.

## Coming Motor Events

**Boston Show**—Annual Boston show, from March 7 to 14, in Mechanics' hall.

**Buffalo Show**—Sixth annual show Automobile Club of Buffalo, March 9 to 14. D. H. Lewis, manager.

**Florida Run**—Jacksonville - Miami test, March 11-16, inclusive.

**Savannah Road Races**—Two days of road racing at Savannah, Ga., March 18-19.

**Canadian Shows**—National motor car and sportsmen's exhibition in Toronto, March 21-28; third annual show in Montreal, April 4-11. R. M. Jaffray, Toronto.

**Pittsburg Show**—Automobile Dealers' Association of Pittsburg show. Duquesne garden, April 4 to 11.

**Denver Show**—Three-day show in Denver, April 6, 7 and 8; G. A. Wahlgreen.

**Westchester Road Race**—Stock car chassis road race in Westchester county, New York, for Briarcliff cup, April 24.

**Targa Florio**—Third annual Sicilian road race, May 10.

**Chicago Hill-Climb**—Chicago Motor Club's third annual hill-climb, May 15.

**Chicago Reliability Contest**—Twelve hundred mile 4-day contest Chicago Motor Club, June 24, 25, 26, 27.

**Grand Prix**—Third annual French grand prix, July 7 and 8.

## MORE A. A. A. BOARDS ARE NAMED

### Makeup of Touring, Legislative and Publications Committees Announced—Chairman Hower Relies Largely on Club Secretaries To Help Him This Year

New York, March 2—More committees have been announced by the American Automobile Association—the touring, legislative and publication boards. As usual the national organization has endeavored to include as much of its territory as possible in making up these committees and in consequence the boards are large ones. The members appointed on the touring board are with a few exceptions secretaries of their clubs. This has been done in the expectation that their chief function during the present year will be to keep the headquarters of the touring board informed as to the condition of roads, the existence of speed traps and concerning local customs in the matter of the enforcement of the law in their various neighborhoods. Such members of the committee as are in the route of the Glidden tour will also be expected to co-operate with the chairman and secretary both before and during the tour. There will be this year no executive committee of the touring board. The board is constituted as follows:

Frank B. Hower, chairman, 760 Main street, Buffalo, N. Y.; Dal H. Lewis, secretary, 760 Main street, Buffalo, N. Y.  
 California—Charles B. Hopper, Los Angeles; E. C. Hickman, San Diego.  
 District of Columbia—Le Roy Mark, Washington.  
 Florida—Herbert P. Race, Jacksonville; T. E. Fitzgerald, Daytona.  
 Illinois—Joseph F. Gunther, Chicago; George G. Greenburg, Chicago; R. A. Whitney, Peoria; R. N. Baker, Springfield.  
 Iowa—A. H. Ruebsam, Davenport.  
 Maryland—D. A. Clark, Baltimore; Charles M. Danzer, Hagerstown.  
 Michigan—Paul H. Deming, Detroit; J. R. Jackson, Grand Rapids; Edwin S. George, Detroit; C. A. Flood, Hart; Charles Haines, Cadillac; J. C. Hatfield, Kalamazoo.  
 Missouri—W. P. Stevens, Kansas City; S. D. Capen, St. Louis; M. T. Slane, St. Louis.  
 New York—Oliver A. Quayle, Albany; Waldron Williams, New York; G. W. Bowen, Auburn; D. H. Lewis, Buffalo; C. H. Benedict, Schenectady; Forman Wilkinson, Syracuse; Robert M. Hunt, Utica; S. M. Frechle, Binghamton; F. R. Richardson, Elmira; C. W. Fairfax, Geneva; Otis W. Sherman, Poughkeepsie; Russell A. Field, Brooklyn; M. L. Bates, Oswego; J. J. Worrell, New Brighton, S. I.; B. Van Tuyle, Rochester; I. G. DeCant, Watertown; A. B. Barkman, Tarrytown.  
 Pennsylvania—Stedman Bent, Philadelphia; Philip S. Flinn, Pittsburg; W. O. Davis, Erie; Jacob D. Rider, Lancaster; J. Sidney Sible, Harrisburg; H. C. Harbach, Philadelphia; Dr. E. C. Wagner, Wilkesbarre; T. J. O'Neill, Hanover; Dr. W. R. Stephens, Wilkinsburg.  
 Wisconsin—Dr. Louis Fuldner, Milwaukee.  
 Colorado—Frank I. Ewing, Greeley.  
 Connecticut—F. T. Staples, Bridgeport; G. K. Dustin, Hartford; W. L. Hatch, New Britain; G. H. Townsend, New Haven.  
 Georgia—Arthur W. Solomon, Savannah; H. J. Lamar, Jr., Macon.  
 Indiana—Fred M. Taft, Logansport; H. A. Brown, Indianapolis; Horace E. Kizer, South Bend.  
 Kentucky—Charles Chreste, Louisville.  
 Massachusetts—M. F. Strout, Springfield; J. C. Kerrison, Boston; Edward S. Bryant, Brockton; F. L. D. Rust, Boston; F. E. Frost, Worcester.  
 Minnesota—W. W. Walker, Duluth; George H. Daggett, Minneapolis; H. S. Johnson, St. Paul.  
 New Jersey—James B. Dill, East Orange; R. N. Johnston, Atlantic City; J. Hiscock, Philadelphia; W. F. Sadler, Trenton; George W. Pittenger, Asbury Park; H. L. Hamersley, Wildwood.  
 Ohio—F. W. Work, Akron; Harry D. Crane, Cincinnati; Charles J. Forbes, Jr., Cleveland; F. T. Cuthbert, Lima; G. E. Mentel, Springfield; George L. Fordyce, Youngstown.

Texas—Eugene Corley, Dallas; C. J. Overman, San Antonio; S. E. Bering, Houston.  
 Vermont—W. W. Brown, Springfield; C. C. Warren, Waterbury; Charles A. Matthews, Rutland.  
 Virginia—Otis M. Alfriend, Richmond; Frederick Lewis, Norfolk.  
 West Virginia—T. J. Westmyer, Wheeling; X. Poole, Martinsburg.

The legislative board is this year much larger than heretofore that effective work may be accomplished through it in securing the passage of the federal registration bill now pending in congress and which comes up for a committee hearing March 12. The make-up of the board is as follows:

Charles Thaddeus Terry, chairman, 100 Broadway, New York city.  
 California—G. Allen Hancock, Los Angeles.  
 District of Columbia—Robert B. Caverly, Washington.  
 Delaware—John Bancroft, Wilmington; Samuel J. Wright, Newark.  
 Georgia—R. J. Davant, Savannah; M. Felton Hatcher, Macon.  
 Illinois—Sidney S. Gorham, Chicago; George W. Ehrhart, Decatur; John Farson, Chicago; William K. Bracken, Bloomington; Samuel P. Irwin, Bloomington; R. N. Baker, Springfield.  
 Maine—Fred J. Allen, Sanford; Frederick Hale, Portland; Charles T. Libbey, Portland.  
 Maryland—William C. Devcmon, Cumberland; Osborne I. Yellott, Baltimore; Robert H. Carr, Jr., Baltimore.  
 Missouri—James Hagerman, Jr., St. Louis; Walter Brownlee, Brookfield; George Robertson, Mexico; Elliott H. Jones, Kansas City; B. F. Bradenbury, Kansas City.  
 New Jersey—W. C. Crosby, East Orange; R. C. Jenkinson, Newark; J. H. Edwards, Jersey City; G. A. Post, Paterson.  
 Ohio—William W. Smith, Jr., Cincinnati; Paul Staley, Springfield; C. D. Crites, Lima; H. L. Vail, Cleveland.  
 Rhode Island—J. Jerome Hahn, Providence.  
 South Carolina—Edward C. Robertson, Columbia.  
 Texas—W. A. Fraser, Dallas.  
 Vermont—W. D. Woolson, Springfield.  
 West Virginia—X. Poole, Martinsburg.  
 Colorado—W. H. Berkhold, Denver.  
 Connecticut—Walter S. Schutz, Hartford; James E. Cooper, New Britain.  
 Florida—J. B. Parkinson, Daytona.  
 Indiana—Fred M. Ayers, Indianapolis; Samuel Murdock, Lafayette; Edgar Apperson, Kokomo.  
 Iowa—Dick R. Lane, Davenport.  
 Kentucky—George H. Wilson, Louisville.  
 Louisiana—William McL. Fayssoux, New Orleans.  
 Massachusetts—Francis A. Hurtubis, Jr.,

Boston; Samuel L. Powers, Boston; Robert C. Cooley, Springfield; W. H. Chase, Leominster; D. F. Gay, Worcester.  
 Michigan—D. M. Ferry, Jr., Detroit; Fred E. Rowe, Grand Rapids.  
 Minnesota—F. B. Nelson, Minneapolis; Lou S. Gillette, Minneapolis; F. B. Lynch, St. Paul.  
 New Hampshire—W. D. Veasey, Laconia.  
 New York—Charles Thaddeus Terry, New York; W. W. Niles, New York; Dave H. Morris, New York; Dr. William P. Richardson, Brooklyn; John A. Barhite, Rochester; H. A. Meldrum, Buffalo; Giles H. Stilwell, Syracuse.  
 Pennsylvania—W. C. Sproul, Philadelphia; George F. Huff, Greensburg; S. Boyer Davis, Philadelphia; Frederick A. Godcharles, Milton; Paul C. Wolf, Pittsburg; J. Sharp Wilson, Beaver.  
 Virginia—C. B. Richardson, Richmond; Joseph E. Willard, Richmond; Frederick Lewis, Norfolk.  
 Wisconsin—Neal Brown, Wausau; James T. Drought, Milwaukee.  
 Miscellaneous—J. H. Everest, Oklahoma City, Okla.; D. C. Bradford, Omaha, Neb.

On the nomination of Chairman Batchelder the following have been appointed members of the publications board for the ensuing year:

A. G. Batchelder, chairman, 915 Flatiron building, New York; J. C. Kerrison, Boston, Mass.; Russell A. Field, Brooklyn, N. Y.; J. C. Wetmore, New York; T. B. Creamer, Philadelphia, Pa.; W. F. Thomas, Newark, N. J.; Arthur N. Jervis, New York; W. S. Gilbert, Cleveland, Ohio; T. E. Fitzgerald, Daytona, Fla.; L. C. Boardman, Chicago, Ill.; L. P. Backey, Philadelphia, Pa.; G. A. Wahlgreen, Denver, Colo.; R. R. l'Hommedieu, San Francisco, Cal.

### STRENGTH FOR THE A. A. A.

New York, March 3—Special telegram—Election to membership of the Automobile Club of Vermont and the West Virginia State Association, the appointment of a European touring representative, the announcement of a road convention and the date of the annual tour, attention to the legal situation and discussion of a campaign for increased individual membership were the main items of the well-filled program of the directors' meeting of the American Automobile Association today. Five state associations have been elected to the A. A. A. since the annual meeting in November, making a total of twenty-one associations now affiliated with the organization. Virginia and Kentucky probably will apply for membership at the next meeting. Chairman Hower announced he had made arrangements with Victor



FRAYER-MILLER, WINNER OF LONG ISLAND ECONOMY CONTEST



Breyer, of Paris, France, to become the European touring counsel for the association for the year 1908. Mr. Breyer, who is well known as the manager of the 1907 grand prix, will give free information on touring to all A. A. A. tourists, assist them to hire cars, engage chauffeurs and furnish all necessary help in touring abroad. Buffalo will be the scene of an open convention of the A. A. A. July 6 and 7, the subjects to be discussed being good roads, touring and legislation, and the Glidden tour will start from Buffalo on July 8 on the long trip.

### NEW IDEA FOR GOOD ROADS

Washington, D. C., March 1—It is expected the bill appropriating money for the support of the federal department of agriculture will be reported in congress within the next 10 days. This bill has a special interest for motorists in that it will carry a substantial appropriation for carrying on the good roads propaganda. As is well known to Motor Age readers, the department of agriculture has a good roads bureau, the chief of which is Logan Waller Page. For years this bureau has been engaged in the construction of sample pieces of roads, mainly of macadam, with a view to showing how it can be done with dispatch. The one difficulty about this plan is the fact that the average mile of macadam road costs from \$3,000 to \$8,000. In most of the country districts this is prohibitive. In many places there are no materials at hand at any price for macadam work. It is proposed in the bill about to be reported to provide that instead of building sample miles of ideal road the good roads bureau shall send about the country expert road builders who shall study local conditions and adapt to local needs such plans as will give each region the best possible roads within its means and of the materials it can command. The bill will meet opposition.

## AIR-COOLERS ONE, TWO

### Frayer-Miller and Franklin Capture Leading Places in Eastern Economy Contest

Brooklyn, N. Y., March 2—Reports made by the judges in the mid-winter economy test of the Long Island Automobile Club, held last week Tuesday, show Harry H. Knepper's 24-horsepower Frayer-Miller transported its passengers from the Brooklyn clubhouse to Montauk Point and return at the lowest cost per head, and so was awarded the first prize. The Franklin, handled by H. A. Vail, used less gasoline than any car on the run, but as it carried only four passengers the cost per head worked out higher than for the Frayer-Miller, and the air-cooler from Syracuse had to take second position. R. Morton brought the four-cylinder Pullman home in third position, and had the honor of being the most economical of the water-cooled cars in the contest.

The most noteworthy feature of the 234-mile mid-winter run was the extreme economy displayed by the greater part of the nineteen cars qualifying within the time limit. The winning Frayer-Miller, with five persons on board, had a total cost for fuel and lubricating oil of but \$3.56, or 71½ cents per head. The Franklin's cost was the lowest of the competition, totaling only \$3.10; as this sum had to be divided by four, the cost worked out at 77½ cents per head. Ten out of the nineteen cars accomplished the run at a per capita cost of less than \$1, and eight others kept the cost below \$2. Calculations were based on gasoline at 25 cents per gallon and lubricating oil at \$1 per gallon.

Among the seven-passenger cars the best performance was made by H. A. Martin's American Mors, with a cost of only 92 cents per passenger; the economy is the

more remarkable in view of the fact that the Mors was a closed limousine with wind shield and all accessories for winter touring. Of the six-cylinder contestants C. A. Carlson's Winton was the most economical, with a per capita cost of 97 3-7 cents per head. The oil consumption was remarkably low, being but seven-eighths of a quart for 234 miles. The complete results are as follows:

	Gasoline, Gals.	Oil, quarts	Passen- gers	Per capita cost
Frayer-Miller	13.000	1 1/4	5	\$0.71 1-5
Franklin	9.875	2 1/2	4	.77 1-2
Pullman	13.125	2 1/2	5	.78 1-5
*Maxwell	14.937	1	5	.79 3-5
Pope-Hartford	14.000	2 1/2	5	.80 3-5
†American Mors	21.125	4 1/2	7	.92
Pope-Hartford	14.875	4 1/2	5	.97
†Winton	26.375	2	7	.97 3-7
Acme	25.50	2	7	.98 2-7
Thomas-Detroit	15.218	4 1/4	5	.98 3-5
Rambler	15.937	3 1/2	5	1.00 1-5
†Acme	24.875	3 1/2	7	1.01 3-7
Lozier	27.75	8 1/2	7	1.15 2-7
Maxwell	22.50	1 1/2	5	1.20
Cadillac	18.25	9 1/4	4	1.50
Mora	16.000	8 1/2	3	1.67 2-3
Studebaker	27.75	6 1/2	5	1.70 3-5
†Stevens-Duryea	29.50	5 1/2	5	1.75 3-5
†Acme	30.375	3 1/4	4	2.13 1-4

\*Two cylinder †Six cylinder ‡Limousine

### COLUMBIA PLANT RESUMES

Hartford, Conn., March 3—Special telegram—The Electric Vehicle Co., of this city, which went into receivers' hands last December, this morning partially resumed operations. A force of about 100 men has been put to work on the assembly of a number of the light 29-horsepower gasoline cars. It is said at the factory that this work will keep the plant in operation for the next 2 or 3 months. No new cars are to be constructed but some will be assembled from parts made up before the receivership. There is a good market for the 29-horsepower cars and many orders for them are in hand already. It is not definitely known what course will be pursued after the present allotment is constructed, but it seems to be the consensus of opinion that once the factory is running it will continue to do so. It is stated rumor that the Packard Motor Co. will acquire the plant.

### NEW JERSEY IS AROUSED

Newark, N. J., March 2—The motorists of New Jersey are aroused over the motor tax and it has been determined to abandon the idea of concession and compromise, come out in the open and give battle in an effort to prove the license fee is a double tax. The New Jersey Automobile Trade Association already has held a meeting at which this principle was endorsed and at another session to be held Friday night by the New Jersey Automobile and Motor Club more fuel will be added to the flames. Representatives of the various motoring organizations will be present and so will Senator Frelinghuysen, author of the bill, and it is proposed at that time to thoroughly discuss with the lawmaker the grievances of the motorists. It is the general consensus of opinion that every clause of the Frelinghuysen measure should be fought tooth and nail.



FRANKLIN, SECOND PRIZE WINNER IN EASTERN ECONOMY TEST

## GREAT SPEED ON HILL

### Apperson Jackrabbit Shows 52.4 Miles an Hour in Pasadena Climb—Successful Contests

Los Angeles, Cal., Feb. 29—Special telegram—Remarkable time was made this afternoon by the Apperson Jackrabbit in the feature event of the annual Pasadena-Altagena hill-climb, the car from Kokomo speeding up the 1.4-10-mile incline at the rate of 52.4 miles an hour, beating such good cars as the Stearns, Franklin, Packard, Pope-Toledo and Haynes. The grade is said to be 11 per cent and the Jackrabbit beat its nearest foe by 18 seconds. Not only did it do this in the ninth event, but it equaled its mark in the tenth ascent, going up in 1 minute 36¼ seconds.

The climb had been postponed a week but this did not detract any from the entry list, the fields in each of the ten events being brilliant ones. Starting from the gardens at Pasadena, the racing cars climbed into the shadow of the Sierra Madre mountains, between rows of magnificent pine trees, all of which bore out the claim that this is one of the most beautiful courses in the world. The entry list was not quite as large as last year's, but what it lacked in quantity it made up in quality, so the spectators were well satisfied with the fields.

The card opened with a motor cycle event which was won in 1 minute 17 seconds by Paul Derkum; then the motor cars were turned loose, the Tourist, a native son car, winning the honors from the Reo and Buick. The Kisselkar beat the Oldsmobile, Tourist and Jackson in the next inning and in the fourth event the order was Pope-Hartford, Reo, Rambler and Elmore, the Rambler, however, protesting the winner. In the fifth class the Oldsmobile defeated the Tourist and Thomas-Detroit and in the sixth the Thomas Flyer easily won, the White steamer failing to finish. The Kisselkar scored for the second time in the eighth class in which it trimmed a Stoddard-Dayton, Tourist and Reo.

Then came the two star events in which the Jackrabbit shone. In the first one it showed its heels to the Stearns, Franklin, Packard, Pope-Toledo and Haynes and in the other the Stearns, Franklin and Packard followed it. Summaries:

Second event, for touring cars listing from \$1,000 to \$1,500—Tourist won; time, 2:41. Reo, second; time, 2:54. Buick, third; time, 2:56.

Third event, for touring cars listing from \$1,500 to \$2,000—Kisselkar won; time, 2:46¼. Oldsmobile, second; time, 2:51 3-5. Tourist third; time, 2:52¼. Jackson, fourth; time, 2:55.

Fourth event, for touring cars listing from \$2,001 to \$2,500—Pope-Hartford won; time, 2:35. Reo, second; time, 3:04. Rambler, third; time, 3:27. Elmore, fourth; time, 3:55. Rambler protested.

Fifth event, for touring cars from \$2,501 to \$3,000—Oldsmobile won; time, 2:25. Tourist, second; time, 2:30¼. Thomas-Detroit, third; time, 2:40¼.

Sixth event, for touring cars from \$3,000 to \$4,000—Thomas Flyer won. White steamer failed to finish.

Eighth event, for roadsters under \$3,000—Kisselkar won; time, 2:22¼. Stoddard-Dayton, second; time, 2:32¼. Tourist, third; time, 2:41¼. Reo, fourth; time, 2:58¼.

Ninth event, for roadsters over \$3,000—Apperson won; time, 1:36¼. Stearns, second; time, 1:58. Franklin, third; time, 2:00. Packard, fourth; time, 2:09¼. Pope-Toledo, fifth; time, 2:20. Haynes, sixth; time, 2:30¼.

Tenth event, free-for-all—Apperson won; time, 1:36¼. Stearns, second; time, 1:54¼. Franklin, third; time, 1:57¼. Packard, fourth; time, 2:12.

### ENGLAND'S AMATEUR IDEAS

London, Feb. 20—Promoters of racing at the Brooklands track will not attempt to define an amateur, but will provide a class which virtually means the same thing. It will be styled the private driver class, and to enter it an applicant must pass the scrutiny of a committee which will investigate his claims to amateurism. A private driver must be one who has no direct interest in the motor car business; he will not be allowed to have his car tuned up by the manufacturers or his agents and he will be restricted as to the employment of a chauffeur or mechanic, who cannot have been trained in the works or repair shop connected with the manufacturers of the car he drives. A private driver can compete in any race, the object being to encourage him to remain independent of the makers and their agents. Another innovation at Brooklands will be the elimination of the rule requiring entry fees to accompany the nomination, the club extending a line of credit and posting those who are delinquent in their payments after the races have been run. Also it has been decided that a driver who crosses another in any part of the race so as to interfere with that competitor's chances shall be liable to disqualification unless he can show he was at least two clear vehicle lengths ahead at the time he crossed.

### HUB SHOW LARGER THAN EVER

Boston, Mass., Feb. 29—The Boston dealers are putting in a lot of work these days getting ready for the annual show that opens here next Saturday night. It will be a bigger one than its predecessors, and with the motor boats not taking up any space this year there will be a larger line of commercial vehicles. For the first time in 3 years the show will be housed in one building. Heretofore the cars had to be distributed in two halls, one quite a distance away. The men in the outside hall never got anything like the number of visitors that thronged the main show. The only outside show this year will be made by E. P. Blake, who will have the Jackson and Logan cars in Horticultural hall, because he could not get sufficient space in the other show to place all his models together. But it is in no sense an antagonistic move, for he has steadily refused to sublet any space to others that have applied to him for room. The week will be divided into various nights for different bodies. This year the \$1 night will be Wednesday, the committee deciding that one such night would be enough.

## FIGHT IN POPE CAMP

### Application Made To Have Toledo Plant Receivers Removed—Decision Not Yet Made

Toledo, O., Feb. 29—A bitter fight is now on in the United States district court here over the receivership of the Pope Motor Car Co., of this city. In a petition Johnson Thurston, attorney representing numerous creditors of the local concern, asks for the removal of the present receivers, Albert L. Pope and George A. Yule, and the appointment of a disinterested local receiver who will look after the claims of creditors. The claim is made that Yule represents a committee of creditors of the Pope Mfg. Co., and that A. L. Pope represents the stockholders of the Pope Mfg. Co., and is a relative of Albert A. Pope, owner of \$750,000 of the capital stock of the Pope Motor Car Co., that both he and Yule are interested in the Pope Mfg. Co., and that the interests of the creditors of the local concern have been made subservient to the personal interests of the receivers, who were appointed to their present position without the creditors having an opportunity to be heard in the matter. The assertion is made also that, although Albert L. Pope, or the Pope Mfg. Co., claims to be the owner of claims aggregating nearly \$800,000 against the local plant, that these accounts do not appear upon the books, which leads the petitioners to doubt their validity, it is asserted.

The petitioners charge that the present receivers have, by their course of conduct, indicated their desire to dismantle the Toledo plant and sell it out piecemeal instead of as a going institution, and that if such a course is pursued it will result in great loss to the creditors.

In support of this claim the charge is made that large quantities of staple articles from the plant of the Pope Motor Car Co., including mahogany, leather and hair amounting to \$18,000, have been sold already by the receivers to the Pope Mfg. Co. On the other hand, the petition charges the receivers have had shipped to the Toledo plant numerous old and obsolete parts of motor cars which had originally been sold to the Pope Mfg. Co.

The charge is made that although an inventory of the assets of the company, taken in November, 1907, showed assets aggregating \$2,000,000, with an indebtedness of only \$450,000, excluding the \$800,000 claim of Albert L. Pope, which is questioned by the creditors, the receivers are preparing now to dismantle the factory here and to sell the machinery and other valuable assets separately.

At a partial hearing of the matter today, at which the receivers, together with Lewis Freedman, of New York, personal representative of Colonel Pope, the matter was taken up by Judge Taylor and final disposition of the case continued until the middle of next week.



"There never has been the slightest misunderstanding or disagreement between Mr. Yule and myself over this receivership or over anything else," said Albert L. Pope as he was preparing to leave for New York following a conference of the receivers for the Pope Mfg. Co., "so the statement published locally this evening to the effect that Mr. Yule will have full charge and that I will drop out is false. Instead of that I want to say right here and now that I will fight this matter to the very end and that in the fight Mr. Yule will stand with me shoulder to shoulder. When we have finished all concerned will know they have mixed up in a real fight," and Mr. Yule nodded his assent to everything that Mr. Pope said.

Before seeing Mr. Pope, however, it was learned that the statement published in an afternoon daily to the effect that at the end of the conference between receivers and creditors it was practically agreed that Mr. Pope should withdraw, in which event no further action would be had in the courts, was false, as was the further published statement that this arrangement had been told by attorneys representing the receivers.

"In the first place," continued Mr. Pope, "this entire trouble is the outgrowth of idle street rumors. There never has been one thing wrong, and ever since we have had the matter in hand there has been a monthly examination of affairs at the Toledo plant.

"As a matter of fact we can show orders are coming in in good shape at the Pope-Toledo factory, and every day we are putting on more men—and not only that, but we will continue to put on more men unless this senseless agitation operates against us and hurts our sales. We just instructed the local management today to put on more men tomorrow, and we are gratified at the showing.

"We have been standing back and saying nothing—and we probably would have done so had it not been for this deliberate misstatement of the facts, but we feel now in the face of that that we are entitled to a fair deal in the matter."

#### FRANKLIN RUN IS ENDED

Cincinnati, O., March 1—After running uninterruptedly for 440 hours 50 minutes the 28-horsepower Franklin motor car with which the Sid Black company had been making a non-motor stop run was ended yesterday. One of the employees of the Black company, in trying to reverse the machine in the street, pulled on the emergency brake lever, set the brakes, and then threw the clutch in, stalling the engine. A minute after the engine was started again and the car driven into the garage and the test ended. Careful records were kept of the road mileage of the car, which amounted to 3,300 miles. Records were made also of the amount of gasoline consumed, which averaged about 25 gallons per day. The oil consumption was about 2 1/4 gallons per day.

## FRANCE IN JOLLY MOOD

### Grand Prix Entry List Raises Hope Country Will Regain Its Supremacy in Racing World

Paris, Feb. 26—Encouraged by the size of the entry list for the grand prix and the voiturette contest that precedes it, the French right now are in a decidedly optimistic mood, taking the fact there are 105 cars engaged in the two events as a sign that France is about to regain its supremacy in the racing world. Then, too, there is more of an international aspect to the 1908 meet in that while France has fewer cars than last year, there is a more liberal representation from other countries, as is shown by the fact six nations are represented in the grand prix—France by twenty, Germany by nine, England and Italy by six each, Belgium by three and the United States by one.

The forty-five cars are divided among the following concerns: France—Panhard, three; Motobloc, three; de Dietrich, three; Renault, three; Bayard-Clement, three; Brasier, three; Porthos, two. Germany—Benz, three; Mercedes, three; Opel, three. Italy—Fiat, three; Itala, three. England—Austin, three; Weigel, three. Belgium—German, three. America—Thomas, one. The entries are as follows:

1—Germain I, Degrais; 2—Germain II, Roch-Brault fils; 3—Germain III, Perpere; 4—Benz I, Hemery; 5—Benz II, Hanriot; 6—Benz III, Erle; 7—Fiat I, Lancia; 8—Fiat II, Nazzaro; 9—Fiat III, Wagner; 10—Panhard I, Heath; 11—Panhard II, M. Farman; 12—Panhard III, Classac; 13—Motobloc I, Courtade; 14—Motobloc II, Pierron; 15—Motobloc III; 16—Mercedes I, Willy Poegge; 17—Mercedes II, Salzer; 18—Mercedes III, Lautenschlager; 19—Lorraine-Dietrich I, Duray; 20—Lorraine-Dietrich II; 21—Lorraine-Dietrich III; 22—Austin I, Barnes; 23—Austin II; 24—Austin III; 25—Renault I, Szisz; 26—Renault II, Caillols; 27—Renault III, Dimitri; 28—Adam Opel I, Fritz Opel; 29—Adam Opel II, Jorns; 30—Adam Opel III, Michel; 31—Bayard-Clement I, Rigal; 32—Bayard-Clement II, Gabriel; 33—Bayard-Clement III, Hautvast; 34—Thomas I, Montague Robert; 35—Weigel I; 36—Weigel II; 37—Weigel III; 38—Porthos I; 39—Porthos II; 40—Brasier I, Thery; 41—Brasier II, Baras; 42—Brasier III, Babirot; 43—Itala I, Cagno; 44—Itala II, Fabry; 45—Itala III.

With the exception of the Italian Isotta-Fraschini team and the Swiss Martini cars, all the contestants in the voiturette race are French. As the ordinary entrance fee for the runabout race is the modest one of \$100 per car, it is quite likely the already long list will be still further increased by half a dozen late entries at double fee. Most of the concerns engaged in the voiturette race are exclusive builders of small cars, the only exceptions being Isotta-Fraschini, Pilain, Martini and Aries. The entry list in this is as follows:

1—Isotta-Fraschini I, Minola; 2—Isotta-Fraschini II, Trucco; 3—Isotta-Fraschini III, Tamagni; 4—Foullarion I, Grillet; 5—Rolland-Pilain I; 6—Rolland-Pilain II; 7—Rolland-Pilain III; 8—Lion-Peugeot I, Giuppone; 9—Lion-Peugeot II; 10—Lion-Peugeot III; 11—Guillemin-le Gul I, Bordes; 12—Guillemin-le Gul II, Converset; 13—Guillemin-le Gul III, Hagauer; 14—Alycon I; 15—Alycon II; 16—Alycon III; 17—Gregoire I, Duanip; 18—Gregoire II, de Marne; 19—Gregoire III; 20—Busson I, Levee; 21—Busson II, Wolff; 22—Busson III; 23—Bailleur I, Bailleur; 24—Bailleur II; 25—Sizaire-Naudin I, Sizaire; 26—Sizaire-Naudin II, Naudin; 27—Sizaire-Naudin III, Leboucq; 28—Martini I; 29—Mar-

tin I; 30—Martini III; 31—Vulpes I, Ganner; 32—Le Metals I; 33—Le Metals II; 34—Le Metals III; 35—Truffaut I, Bardin; 36—Demeester I, Demeester; 37—Demeester II; 38—De la Rouliere I; 39—Monnier I; 40—Monnier II; 41—Delage I, Lucas; 42—Delage II, Bonnard; 43—Delage III, Guyot; 44—Werner I, De Langhe; 45—Werner II, Molon; 46—Werner III, Gauderman; 47—Arion I, Leon-Louis; 48—J. Corre I; 49—J. Corre II; 50—J. Corre III; 51—Ampere I; 52—Ampere II; 53—Ampere III; 54—Passartout I; 55—Stabilia I; 56—Aries I, Baron Petlet; 57—Aries II; 58—Aries III.

In engagement fees the secretary of the sporting commission of the French club has received \$42,800, this sum covering forty-five grand prix racers, sixty runabouts, five tire stations, one oil stand and a reserve space for the Bosch Magneto Co. The racing board's income is further increased by the Dieppe bonus of \$10,000, making already \$52,800 in hand. This will, of course, be very largely augmented by advertising spaces on the course and grand stand admissions. Expenses, however, in connection with a race of such magnitude will be enormous. It is estimated grand stands and accessories alone will cost from \$20,000 to \$25,000. More than 38,000 yards of fencing has been ordered to protect the course at every cross road and wherever people are likely to congregate. In addition 9,000 yards of solid wood barricading will be erected.

It is declared authoritatively in Paris that the Kronprinz William will attend the grand prix races incognito. The matter is at present in the hands of the ministers of foreign affairs at Paris and Berlin.

#### MANY IN THE DENVER SHOW

Denver, Col., Feb. 28—The new deal in the matter of the show this year in Denver has met with ready co-operation. Twenty-five of the twenty-seven dealers in motor cars already have contracted for space in the Mammoth rink. The two not in are the Ford and the Winton. The exhibitors will have a total of ninety-seven cars on the floor. In addition three agents for motor cycles, ten tire, two oil and two supply companies and one carriage concern will have space. Out of a possible 18,000 square feet of floor space the committee has taken off about 6,000 square feet, so as to provide roomy aisles. The motor cars will be on the main floor and the accessory exhibits in the gallery. The show is from April 6 to 9.

#### MILWAUKEE CHANGES ROUTE

Milwaukee, Wis., March 2—A change has been made in the route of the 3-day reliability run that is to start on March 10. Beloit, Wis., is now to be included in the itinerary, as was lately decided in a meeting of the Milwaukee Automobile Trade Association. This means that there will be changes in the route that was mapped out some time ago. Instead of running to Madison on the first day, it has been decided to make Oshkosh the stopping place. The second day's run will be from Oshkosh to Beloit by way of Madison. The third day's run will be the return trip from Beloit to Milwaukee. The change in the route to be traveled will bring the total distance up to 325 miles.

# RULES GOVERNING GREAT BRITAIN'S TESTS

LONDON, Feb. 21—Although the international touring car trial, promoted by the Royal Automobile Club, does not start until Thursday, June 11, four entries have been made already, S. F. Edge having named six-cylinder Napiers in classes 7 and 9, and the Rolls-Royce people two of their sixes in class 9.

These trials give promise of being the greatest of their kind ever promoted, and should prove ideal tests for motor cars. They will assume the form of a tour of not less than 2,000 miles, finishing with a 200-mile race on the Brooklyn track, and incidentally including in the tour 20 miles of timed hill-climbing. The tour starts from London on July 11 and goes in stages of 170 miles per day to Glasgow, Scotland. At this point it follows the route of the Scottish reliability trial, and after completing these trials the contestants tour to Brookland's track, where a 200-mile race ends the contest, the arrangements for this race being such that the first car to cross the finishing line will be the winner of the event. Cars will be under the supervision of observers from the time they are handed over to the club until the completion of the contest. No woman will be accepted as driver, observer or other passenger. The basis of the competition is time lost under any of the following headings; and in reckoning this time loss fractions of minutes will count as minutes except in the timed hill-climb and in the 200-mile race on the Brookland track.

In excess of the maximum running time allowed for each stage.

In advance of the minimum running time allowed for each stage. A car arriving in advance of the minimum running time will be held with the engine running till the allotted period has elapsed, and no work whatsoever may be done during this period.

In adjustments, repairs, replacements, lubrication, replenishments of oil and water, or involuntary stops, except on a hill whilst being officially timed.

In excess of 3 minutes for gasoline cars and 10 minutes for steam cars allowed for starting up each morning, during which no other work may be done.

In excess of the 1 minute starting allowance after compulsory stops on the road, during which no other work may be done.

In filling in gasoline, during which no other work whatsoever may be done. Each gallon put into the tank will be reckoned as 1 minute lost. On the Brooklands track every gallon taken out of store will be counted as having been put into the tank.

In climbing the timed hills. Fractions of a minute will be so counted.

In covering the required distance on the Brooklands track, including any involuntary stops. Fractions of a minute will be so counted.

Cars will be started for the Brooklands race by classes, and in accordance with their respective time records on their arrival at Brooklands, plus the number of minutes corresponding to the number of gallons taken on board for the purpose of the race at Brooklands. The car of each class which first passes the winning post at Brooklands will have won the prize in its class.

The rule on maximum and minimum speeds is as follows:

Every daily distance, except at Brooklands, shall be apportioned into stages.

There shall be a maximum running time fixed for every stage.

The time occupied by all stops shall be added to the maximum running time in order to arrive at the car's actual maximum time for a stage.

If the number of minutes occupied by a car in completing a stage is in excess of the car's actual maximum time for the stage, the car

shall lose minutes to a number equal to the excess minutes.

A car which does not arrive at the end of a daily distance by 5 a. m. on the morning following shall be disqualified.

There shall be a minimum running time for every stage.

The time occupied by all stops shall be added to the minimum running time, in order to arrive at the car's actual minimum time for a stage.

If the number of minutes occupied by a car in completing a stage is less than the car's actual minimum time for the stage, the car shall lose a minute in respect of every minute of prior arrival.

If the prior arrival is due, in the opinion of the club, to deliberate intention on the part of the driver, the car shall be disqualified.

Any car arriving at the end of a stage before the expiration of the car's actual minimum time shall be stopped and kept standing with the engine running till the car's actual minimum time for the stage has expired, and during this period no work may be done.

Each car must at all times carry its full complement of male passengers, or equivalent in ballast, passenger weight being estimated on an average of 140 pounds per passenger. During the Brooklands race no passenger other than the mechanic is carried, ballast being used instead. The driver has the right to have the mechanic in the seat beside him, and no person shall be allowed to ride on the floor or step. It is obligatory for the entrant to provide a seat for the observer, and in case of four-seated cars in the Scottish portion of the tour, he shall provide two seats for the two observers if so required by the club, one of the observers being a representative of the Royal Automobile Club, the other of the Scottish Automobile Club. These observers shall be provided by the competitors, one observer for each car nominated. They shall be subject to the approval of the club, and the competitor shall in every way be responsible for the action and remunerations of the observer nominated by him. Observers shall not assist in any way in the adjustments or repairs of any car except in case of a two-seated runabout, when they shall do so if called upon by the driver. Any observer failing to carry out the club's instructions punctually and satisfactorily shall, at the discretion of the club, be superseded by another. At the end of each stage of the run the observer shall hand a card to the driver showing the number of stops, as well as the number of minutes lost on that stage of the trip. For timing purposes every entrant shall supply the observer nominated by him with a stop watch approved by the club and supplied to the entrant at cost price.

Regarding repairs on cars during the tour the regulations state that, except at Brooklands, no driver or mechanic, or in case of a two-seated car, the observer, shall be allowed to leave his seat or to make any adjustment or repair, or use any oil can while the car is running, but the use of a pressure feed pump, or the adjustment or manipulations on the driver's side of the dashboard and above the floor boards will be permissible. The gear ratio shall not be changed during the trial under any circumstances.

No adjustments, uncovering or inspection of parts or repairs will be permitted during such compulsory stops as for meals. No spare part or material except as mentioned below shall be employed to repair a car during the trial unless it has been carried on the car throughout the trial. This, however, does not prevent the use of such means for repair as would be normally at hand provided that such means shall be used only by the driver and mechanic, or on a two-seated car by the driver and observer. Under no circumstance will traveling workshops or special depots be permitted. All spare parts replaced, except tire casings and inner tubes, must be carried throughout the trial, except detachable wheels or rims, as may be replaced at Brooklands track before the starting of the speed test. Before the starting of the Brooklands race spare parts and stores may be replaced by ballast. Lubricating oil and water may be acquired during the trial and ignition batteries recharged. From this rule it is evident that during a stop for repair or adjustment any work on a car may be done, but during a stop for taking on gasoline, no other replenishment, repair, adjustment, uncovering or inspection of parts will be allowed.

In taking into consideration the amount of fuel used, the unique scheme has been evolved of counting 1 minute lost to the car for every gallon of gasoline taken on throughout the trial. Should a car stop to take on 5 gallons it will be detained 5 minutes. The fuel tank shall be of sufficient capacity for a day's journey of 170 miles, and fuel can only be obtained at the night stops, except in emergency cases, when it will be necessary to obtain the observer's consent. The taking on of fuel at points other than night stops, places the car open to disqualification. In connection with the hill-climbs the engine of a car may be stopped during any delay consequent on instructions given by a club official preparatory to the hill-climbing test, but at all other times the engines must keep going if the road wheels are at rest. An exception to this is the case where the engine can be stopped while the car coasts. A car which is pushed or assisted during, or which does not carry its full weight and complement of passengers, or ballast, throughout any hill-climb, shall be disqualified.

An allowance of 3 minutes is made for starting gasoline cars and 10 minutes for starting steam cars each morning of the test, but no further starting allowances will be made during the day, except 1 minute for each compulsory stop. During the 3 minutes' allowance for starting gasoline cars, no lubrication, repair, adjustment, or other operation is to take place other than—turning on gasoline tap, pumping up pressure feed, flooding the carbureter, actuating the compression re-



lease device, switching on current, turning the starting handle and operating the self-starter effused. In steam cars the permissible work is confined to turning on fuel, pumping up pressure, lighting the pilot light, pricking the vaporizer nozzle, turning on the main burners, opening and closing the blowoff tap, and starting and reversing the engine.

A total of 5 minutes is allowed each day without penalty for the adjustment of brakes whenever desired by the driver or required by the observer. This, however, must be done under the observer's notice, and while the car is stopped for this work no other repairs are permitted. Delays due to tires will be counted both on the road and on the track at Brooklands, and because of the importance of detachable wheels and rims, these will be allowed. Tires may be fitted to spare rims and wheels outside of the running time, but under observation, provided that such wheels and rims are carried on the car throughout the trial. During the Brooklands race, tires and detachable wheels and rims have not to be carried on the cars, but may be picked up or discarded by the driver at a place appointed by the club, and as often during the race as is deemed necessary. Contesting cars with a horsepower rating of 16 or over cannot carry fewer than four passengers.

Cars competing in these trials must comply with a certain standard of measurement set forth in the accompanying table. In this table are nine vertical columns, the first giving the classification, the second and third the horsepower and cylinder dimensions, the fourth seating capacity and the remainder body specifications as indicated. In the last three columns, which take into consideration wind resistance area, the mean width at the widest part, usually the back, is to be taken. The height is to be measured from the top of the frame to top of the body, and if the frame is bent upwards at the rear, the height must be taken from the level of the top of the frame before the bend occurs. The expression, "Vertical projection of the two front wings," is to be understood as the resistance offered by the fenders of the front wheels, and in this all cars are supposed to have the same wind area for the rear wheel.

#### Scottish Reliability Trial Rules

The Scottish reliability trials, which make up a part of the international touring trial, are governed by a separate set of rules, and during this portion of the international trial the rules of the Royal Automobile Club will stand, except when they are inconsistent with and superseded by the rules laid down by the Scottish

Automobile Club. These Scottish trials, which run from June 15 to 19, extending over 5 days and over 750 miles of road, partake largely of a non-stop run, as the only stops not causing loss of marks—excepting stops for tire troubles under 1 hour in all—are compulsory, and during such compulsory stops no adjustment or repair to the car, other than adjustments of brakes, for which 5 minutes will be allowed on each of the second, third, fourth and fifth days without penalty, will be permitted.

Owing to the mountainous nature of the country in which the majority of these trials will take place, considerable latitude will be permitted in the way of brake adjustment, which has been taken as a precaution on the part of the governing body. Five minutes is allowed each day for this work. Thirty minutes are allowed on the second, fourth and fifth days for replenishing and lubricating before the start. The testing or tightening of bolts and wing or other nuts, other than tire nuts, the testing and tightening of terminals, the changing or adjustment of ignition wires, the opening of boxes containing ignition batteries or coils, and the cleaning of commutators or distributors, shall be deemed adjustments or repairs, notwithstanding the fact that tools are not used. If during the whole trial more than 1 hour in the aggregate is occupied in stops for tire troubles, the excess time shall be reckoned as in-

voluntary stops, and one mark for each 5 minutes or part thereof shall be deducted, and shall be counted against the car in marking for reliability or gold medal award, and no vehicle with tire stops exceeding 1 hour in all shall be eligible for a non-stop certificate.

There will be a maximum number of marks for the run, and marks will be deducted for every minute or part of a minute during which the vehicle is at rest from the time of starting to the conclusion of the run, or as otherwise provided for, on the following basis:

For each stop not exceeding 5 minutes—two marks for every minute or part of a minute.

For every stop exceeding 5 minutes and not exceeding 15 minutes—ten marks for the first 5 minutes, and three marks for each succeeding minute or part of a minute required.

For each stop exceeding 15 minutes, forty-five marks for the first 15 minutes, and four marks for each succeeding minute or part of a minute.

Where two or more stops from a like or similar cause take place within short intervals the committee reserves power to determine that such shall be reckoned as one stop under above rule.

The club will award an efficiency gold medal in each class. The award of the medal in each class will be made to the car making the best performance on the following basis: 750 marks will be the maximum for reliability; 50 marks will be the maximum for starting; 100 marks will be allotted to the vehicle in each class making the best results in each hill-climbing test adopted, and the others will be allotted a percentage equivalent to their respective performances, and the average of the marks so gained will be taken, 100 being consequently the maximum possible. The marks for hill-climbing will be determined on the following formula:

Rated weight

Time

Rated weight for this purpose will be determined on the following formula:

DW

W — — + L

3 M

W equals weight of car unladen.  
D equals difference between unladen weight of car and average unladen weight of all cars in class, always considered positive.  
M equals mean unladen weight of cars in class.

L equals load carried.  
One hundred marks will be allotted to the vehicle in each class showing the lowest fuel consumption per ton mile over the whole trial, and the others will be allotted a percentage equivalent to their respective consumption per ton mile.

### TOURING CAR STANDARDS—OPEN CARS ONLY

CLASS	R. A. C. RATINGS For Internal Combustion Engines. For Steam Cars equivalent Rating to be settled by the Technical Committee of the R. A. C.		SEATING CAPACITY		WIND RESISTANCE AREA			
	Engine Rating D/N	25			Weight, all complete with Passengers, Petrol, Tools, and Spares, etc.	Distance from Dash to centre of Back Axle. Feet and inches.	Body—Product of Mean Back Width x Height from Frame.	Wings—Area of Vert. Projection of two Front Wings.
1	* 0.	* 0.	† 2	† 13	† 4'0"	† 9½	† 3	† 12½
2	* 6.4	* 16.	† 2	† 17	† 4'0"	† 9	† 3	† 12½
3	* 13.0	* 32.5	† 4	† 21	† 5'3"	† 13	† 3	† 16
4	* 16.0	* 40.	† 4	† 25	† 5'9"	† 13	† 4	† 17
5	* 20.8	* 52.	† 4	† 27½	† 6'0"	† 14½	† 4	† 18½
6	* 25.6	* 64.	† 4	† 30	† 6'0"	† 14½	† 4	† 18½
7	* 32.4	* 81.	† 4	† 32½	† 6'0"	† 14½	† 4½	† 19
8	* 40.0	* 100.	† 4	† 35	† 6'3"	† 15	† 4½	† 19½
9	* 46.4	* 116.	† 4	† 37½	† 6'6"	† 15	† 4½	† 19½
10	* 52.8	* 132.	† 4	† 40	† 6'6"	† 15	† 5	† 20

\* Greater than.  
† Not greater than.  
‡ Not less than.

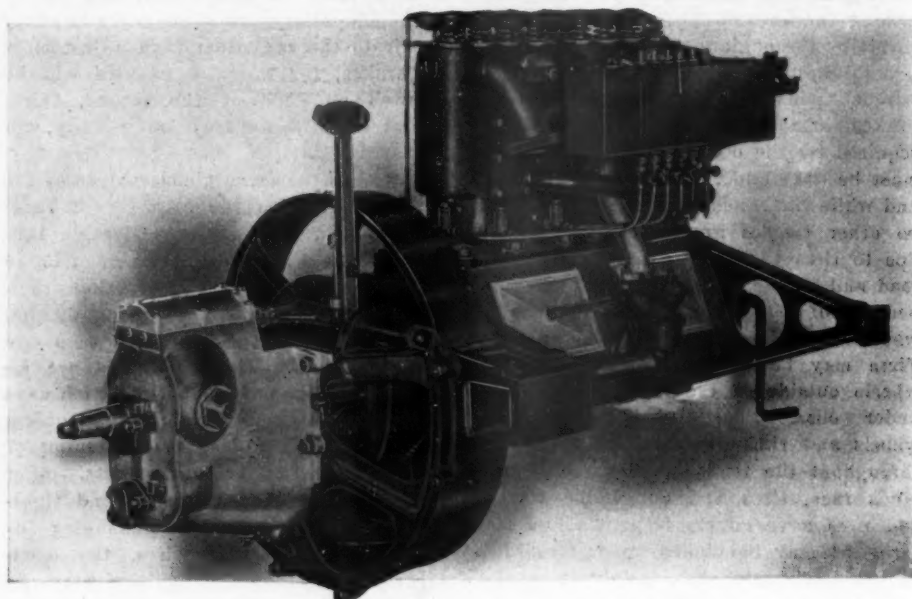


# FIELD OF MOTOR CAR DEVELOPMENT



THE Dorris cars for 1908 are built in one chassis size, but carry three body designs—a three-passenger roadster, five-passenger touring car and a conventional limousine. In all are used the 30-horsepower four-cylinder motor, having  $4\frac{1}{4}$  by 5-inch cylinders cast in pairs and with valves carried in the cylinder head. In offering its cars to the public for the third season the Dorris Motor Car Co., of St. Louis, Mo., announces that its general principles of construction, as used on the initial car 2 years ago, are continued, although upward of a score of detailed improvements are noticed. The horsepower rating has not been changed. The bore and stroke of the pistons remain unaltered. In fact, the general skeleton remains the same, the changes being only in the subsidiary parts of the car's anatomy.

Starting with the motor, little change has been made in its general appearance, a combined motor and transmission set, as illustrated on these pages, being as heretofore, and carrying as one of its characteristic earmarks detachable motor supports, that at the forward end being a diamond-shaped steel casting perforated to reduce weight and having the motor case trunnioned at its center, while its ends bear on the side members of the frame; whereas the rear support bolts rigidly to the crankcase and has a somewhat circular part embracing the lower half of the flywheel, to which bolts a spider carrying the selective transmission case. A change has been made in the water circulation. The flow from the radiator heretofore entered the cylinders at the bottom of the jackets on the left side, whereas it now enters at the bottom on the right side, the intake pipe showing beneath the lubricator and inside of the six leads from it. The water outlet was from the top on the right side, but is now placed on the left

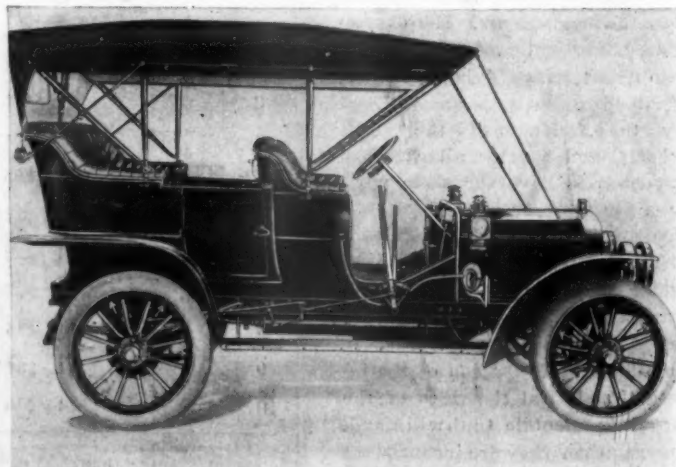
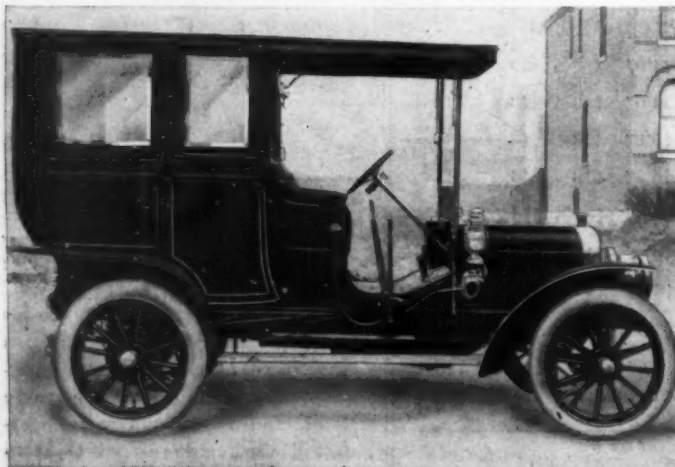


DORRIS UNIT POWER AND TRANSMISSION PLANT

side—not from the top of the cylinder, but from the sides of the jacket at the highest point. These changes have been made in order to remove the piping from the rocker arms on the cylinder heads, so now all of these parts are accessible, whereas heretofore the water pipes infringed on this accessibility, to a certain extent. In the cylinder casting the only change made is that of increasing the thickness of the water space between the cylinders in each casting, this space being now  $\frac{3}{8}$  inch in width. Another improvement appears at the left front, where the centrifugal water pump is located. Last year the company used a gear pump and located it on the forward end of the camshaft, placing it directly in front of the motor support arm; this year a pumpshaft is used, which is gear-driven from the camshaft, the housing for the pump gear ap-

pearing to the rear of the supporting arm. The push rods for operating the valve have not been changed in any detail, but the cylinder compression has been lowered from 75 to 70 pounds. An improvement within the cylinders is the reducing of the weight of the pistons, which does not a little toward the reduction of vibration in the motor and should also increase the life of the upper and lower connecting rod bearings.

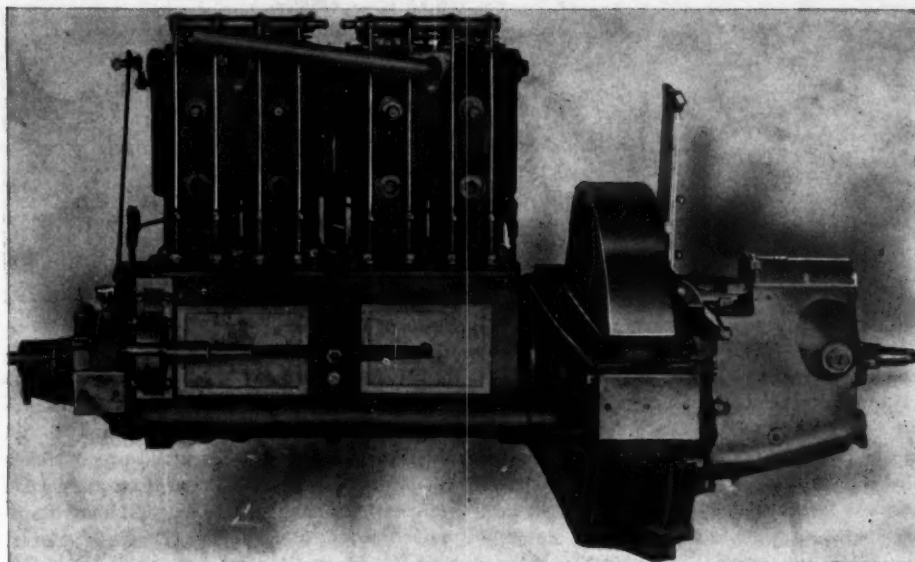
In case a magneto is desired, the pumpshaft is continued to the rear and unites with the magnetoshaf by jaw coupling, the magneto resting on the bed midway of the crankcase length. In the standard equipment, however, the company supplies an ignition outfit consisting of dry cells as current producers, and an Atwater-Kent combination coil, make-and-break and distributor on the dash, the distributor por-



DORRIS FIVE-PASSENGER LIMOUSINE, AND TOURING CAR, USING SAME SIZE OF CHASSIS



# ONE DORRIS MODEL FOR 1908



DORRIS MOTOR—WATER PUMP ON SEPARATE SHAFT AT FRONT

tion being driven from the end of the pumpshaft by a shaft connecting therewith by universal joints and angling along the motor side to the dash. The Dorris is one of several companies adopting the Atwater-Kent system, and, like all of the others, claims very satisfactory results for it, testifying that a car can be run from 1,500 to 2,500 miles on a single set of six dry cells.

A change in the lubrication is the attachment of a six-feed McCord oiler on the right side of the motor, and carried on brackets from the cylinders so it hugs the exhaust manifold. Its pumps are driven by eccentric from the forward end of the camshaft and of its six leads four enter the cylinders above the crankcase and two connect with the end bearings of the crankshaft. The oil reservoir is fitted with bleeder tests, and the pumps are individually adjustable. The introduction of

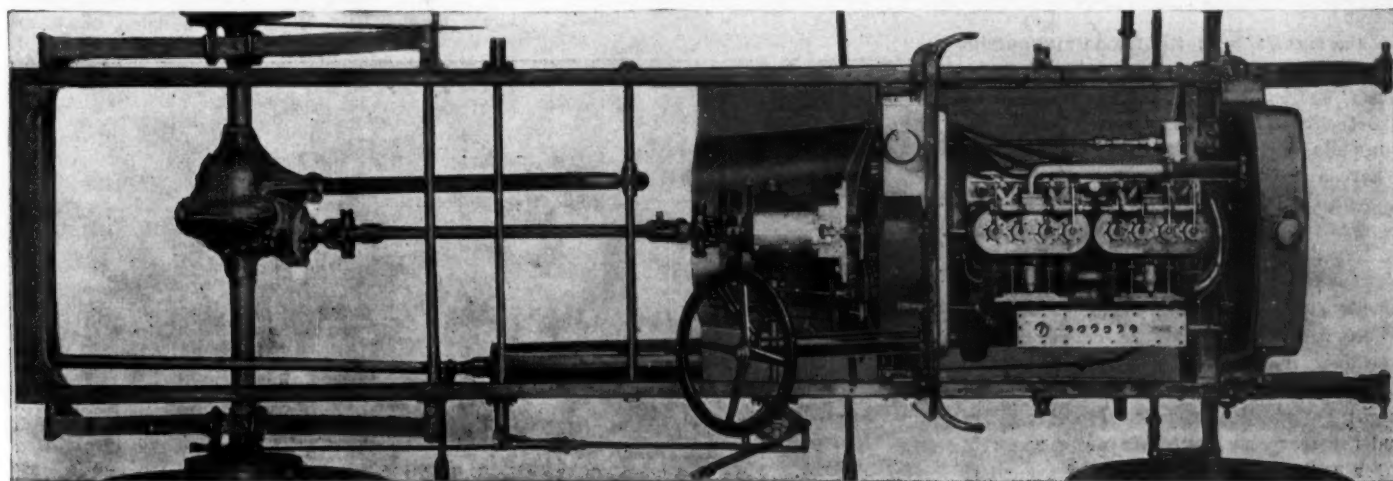
the Atwater-Kent ignition system has eliminated the use of a commutator which last year was carried on the top of the vertical shaft and located well above the cylinder heads.

In the hasty examination of the motor it is noted that the intake and exhaust valves are made interchangeable with integral heads and stems and have a diameter of  $1\frac{1}{2}$  inch and  $\frac{1}{8}$ -inch lift; the crankshaft is carried on three Parsons white bronze bushings and has an integral flange to which the 22-inch flywheel attaches; cylinders are machined, bored and ground to a working finish; pistons carry four eccentric lap-jointed rings which have a ground fit; in the piston are two bronze bushings for supporting the wristpins; connecting rods are I-beam drop forgings with marine type of lower ends and the top end split for clamping the center of the hollow wristpin; the crankcase is a

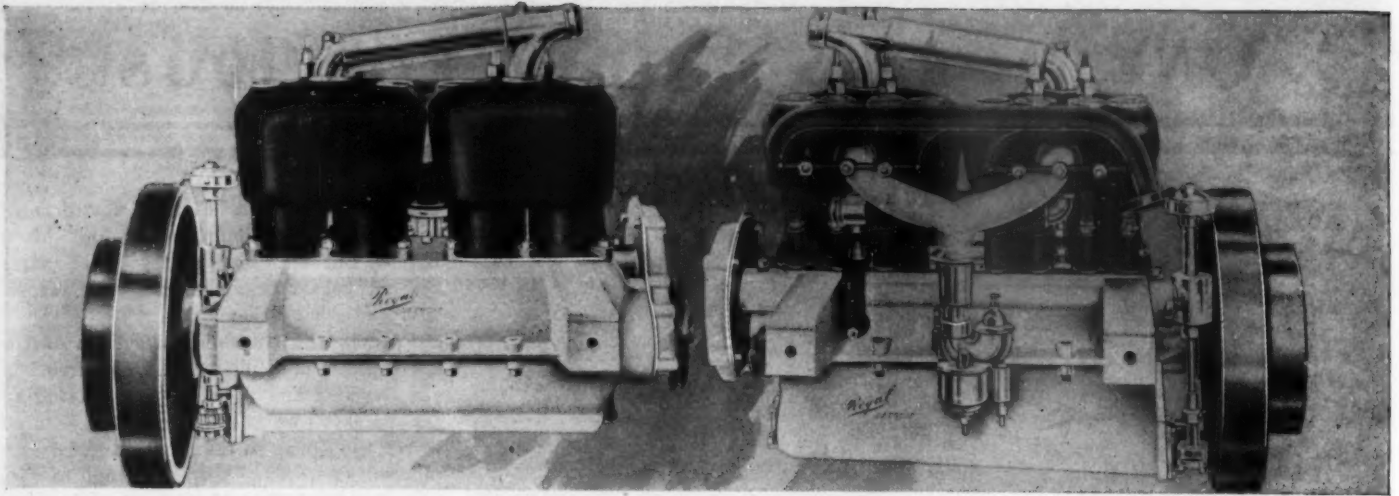
one-piece aluminum casting not divided into the conventional upper and lower halves, but with end plates which carry the crankshaft bearings, and large inspection plates on either side.

First in the transmission system of the car comes a multiple-disk clutch carried in the flywheel and in which are alternating sets of cast iron and bronze disks, secured in the usual way to the flywheel and transmissionshaft, one set securing at its periphery and the other at its hubs. Instead of engaging the disks by one large spring, a series of three smaller springs, distributed equally at 120 degrees on the flywheel face, is used, each of these springs having a separate adjustment. The maker claims that by using these springs and placing them so their tension is exerted on the disks near their periphery, a more positive engagement is secured than where a single spring bearing upon the disks near their centers is used. It is interesting, also, to note the trend of development in this clutch, which in the first models of the cars 2 years ago contained a great many disks; now this number is reduced to ten.

Perhaps the greatest 1908 milestone in Dorris improvement is the use of a selective transmission, the company previously having used a progressive type. The present gearset, offering three forward variations, is a conventional design in which the mainshaft is directly above the countershaft, and carries on it the two sliding units. The support of this case is from the rear end of the crankcase, through a spider already referred to, and which bolts to the forward end of the case. Using this support allows of a one-piece aluminum gearcase instead of a two-part one, and further makes it possible to reduce its size considerably. Gears are nickel steel forgings. In order to avoid shifting of gears with the clutch engaged,



DORRIS CHASSIS—NOTE REAR PLATFORM SPRING WITH CROSS SPRING AT THE REAR



NON-VALVE SIDE OF MOTOR—TWO VIEWS OF REGAL MOTOR—VALVE SIDE OF REGAL MOTOR

an interlocker is provided, which consists of a longitudinal sliding bar in the top of the case, and on which are squared slots corresponding to the different gear shifts. A particularly neat job has been made of the shifting mechanisms, which is completely housed in the rear of the case, there being no sliding parts outside. From the gearset a shaft with double universals connects with the Timken rear axle, and paralleling it is a torsion bar which at its forward end is carried between upper and lower coil springs in a vertical sleeve which has a hinged support on its upper end to a cross rod on the frame. The torsion bar is straight from end to end this year, whereas in the earlier models the transverse spring, placed at the forward end of the rear side springs, interfered with it and necessitated an arch in the center of it. The placing of the transverse member of the platform spring under the rear crosspiece of the frame has simplified these matters quite materially.

Three brakes are fitted. The running brake placed on the rear end of the transmissionshaft immediately behind the case is a clamping band lined with camel's hair and pedal-applied; whereas the two expanding emergency brakes operate on drums on the rear wheels, these drums being 12 inches in diameter and 2 inches wide. These brakes are applied by a unique equalizing device located entirely on the right side of the frame and outside of the side number. The rod connection from the brake lever connects with a short equalizer rod, the top end of which connects directly with the right brake, whereas the lower end connects with the arm on the end of a transverse shaft which crosses to the opposite side of the frame, and there carries a short arm for connection with the left brake. This design places the equalizing scheme outside, where all adjustments are readily made. The only change in the driveshaft system is the use of large universal joints; to this might be added that now the driveshafts and the rear axle have a taper fit at their outer ends, and the wheels are secured thereto by a key.

The company continues the use of its rack and pinion steering gear—a pinion on the lower end of the steering column meshed with a transverse steel rack which slides in a bronze sleeve, this bronze sleeve secured to the under side of the crankcase. The arm on the left steering knuckle to which the rack is universally united, has its ball end curved upward, thereby reducing the angularity of the union between it and the rack, as well as bringing it out of the danger zone it would be in if carried closer to the ground. As heretofore, the forward axle is an I-beam forging, with Elliott ends for the steering knuckles, the whole construction being a Timken product with Timken rollers for carrying the forward wheels.

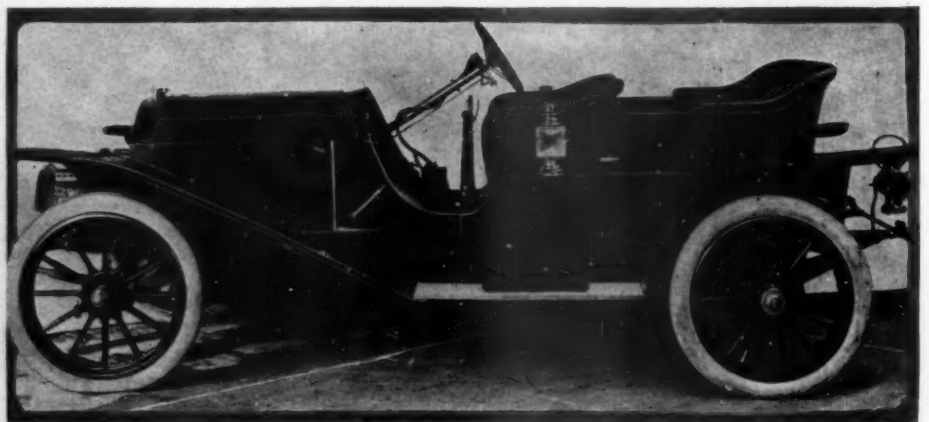
The body has been entirely redesigned and enlarged by lengthening the space between the back of the front seats and the forward side of tonneau seat. The rear fenders now sit under the lateral extension of the tonneau and bolt thereto, and an improvement in the front fenders is the use of mud flaps between them and the frame. In order to prevent the cold from striking the driver's foot by coming through the slots in the toe board in which the pedals operate, a rectangular plate carried beneath the footboard and attached to each pedal is used, so the pedal slides back or forward, this plate entirely covers the slot in the footboard. The

wheelbase has been increased from 104 to 106 inches, and wheels that were 32 inches in diameter have been increased to 34 inches. Tires regularly fitted are 4 inches in diameter front and rear, except in case of the limousine, where they have a diameter of 4½ inches. The Dorris roadster, not illustrated in these columns is a conventional design, made with rumble seat to accommodate one or two passengers. The fender and body lines are racy.

#### REGAL, A NEWCOMER

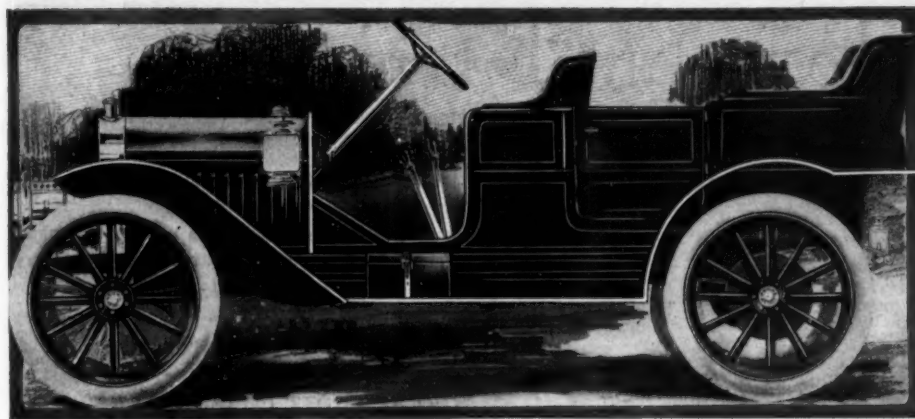
One of the latest entrants into the motor car field is the Regal Motor Car Co., Detroit, Mich., which is marketing two models, a three or four-passenger roadster and a five-passenger touring car, both using the same chassis, the cardinal features of which are 25-horsepower motor, expanding clutch, three-speed and selective gearset incorporated with the rear axle, 100-inch wheelbase, 32 by 3½-inch tires all around, two sets of brakes on the rear wheels and shaft drive. In brief, both are low-priced machines, but in them are combined the majority of the approved construction features of the day, and credited respectively with 45 and 50 miles per hour for the touring car and roadster.

Employed in these models is a conventional four-cylinder four-cycle motor, having cylinders cast in pairs, and with valves mounted in integral expansion chambers



STODDARD-DAYTON FOUR-PASSENGER BABY TONNEAU CAR





REGAL FIVE-PASSENGER FOUR-CYLINDER TOURING CAR

on the left side, this location necessitating the use of but a single camshaft, which is carried within the crankcase, both sets of valves opening by direct lift. The motor is but one more repetition of that standard construction which combines in its sum total such recognized lines as aluminum crankcase in upper and lower halves, the upper half with supporting arms and carrying the three crankshaft bearings; one-piece camshaft, with bearings and shaftings case-hardened and ground to size; drop forged connecting rods; pistons made specially long to achieve smooth running at high speed; intake and exhaust manifolds held in place by two straight clamps, one for the front and one for the rear cylinder pair; thermo-syphon circulation of the cooling water; jump spark ignition; standard float feed carbureter, and lubrication, the last named described as a shooting oiler within the crankcase.

The make-up of the transmission system begins with an expanding clutch operating within a flange in the flywheel. In rear of this comes the driveshaft coupling with the selective gearset on the rear axle, which gives direct drive on the third or high speed. Braking reposes with two sets, one pedal-applied expanding set operating within the rear wheel drums, and the lever-applied emergency set clamping on the same drums. The application of each set disengages the clutch. Combined in

the running gear are tubular front axle, dropped between the endings and the spring seatings; worm and nut steering gear with throttle and spark control above the wheel; semi-elliptic front springs 38 inches long, and with leaves 2 inches wide; full elliptic rear springs 26 inches long, and with 2-inch leaves; pressed steel frame construction, dropped in front of the rear axle; ball bearings for the front wheels and Hyatt rollers for the rear axle parts. The cars have been made particularly light, the runabout weighing but 1,650 and the touring car 1,800 pounds.

#### BODIES IN VARIED STYLES

Nowhere is versatility of car design more conspicuous than in body construction, which has received great attention during the past year, the result being a crop of new products every 3 or 4 months, three examples of this trend being illustrated on these pages. One is the Stoddard-Dayton detachable baby tonneau which comes as a disciple of the Stearns car of this type that appeared during the past autumn. Making the rear seats low gives an exceedingly racy effect. The car is a standard machine and is fitted with a regular equipment. A second example of novelty in body lines is the Moon runabout, provided with a large compartment in the rear of the seat. This is a new style and has but a limited following.

Lastly is the Franklin roadster. This marks the entry of the H. H. Franklin Mfg. Co. into this particular field. The body lines throughout are typical of the roadster development of the last 12 months.

#### MOTOR CAR LITERATURE

In the 1908 revised edition of A. L. Dyke's "Diseases of Gasoline Automobiles and How to Cure Them," the author combines in the 224-page cloth-bound volume much of value to the motoring novice. The book begins with an explanation of gasoline motors and an analysis of the ignition problem, together with remedies for its different diseases. Following this comes carburation with troubles and how to cure them, and the different departments of cars and their regulation are similarly treated. The book is published by A. L. Dyke, St. Louis, Mo.

The March issue of Graphite contains as its leader Chapter IX on "Pressure Reducing Valves," by W. H. Wakeman, besides other worthy contributions.

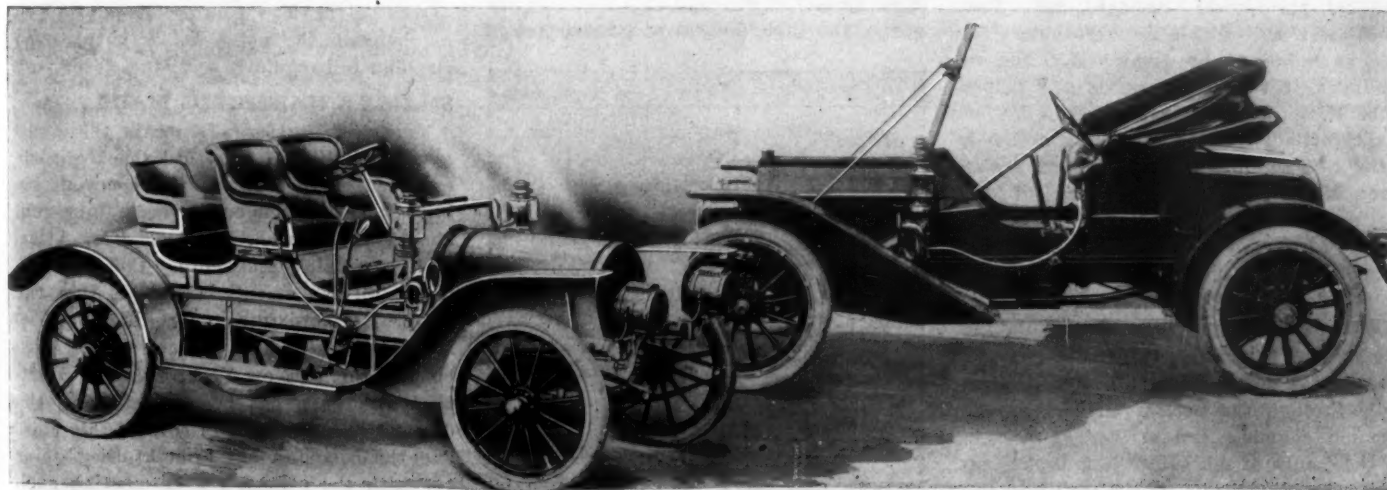
The leading story in February Motor Talk is a diary of the doings of Ralph R. Owen and his car on the New Orleans trip. In addition are several other departments covering good tours as well as information most valuable to motorists.

The Northwestern Storage Battery Co. in its latest catalog on storage batteries gives on one page prices on all the different parts of these batteries.

A. R. Mosler & Co. illustrates a score of spark plugs and their different styles of timers, distributors and dashboard ignition outfits in a small catalog.

Leon T. Schettler, Los Angeles, Cal., has entered the realm of the manufacturer by issuing a large folder entitled "The 1908 Big Four," containing, as it does, illustrations and specifications of the Reo, Wayne, Kisselkar and Woods electric, the machines he handles on the coast.

The Burlington Basket Co., Burlington, Ia., shows its leaning toward the motoring game by devoting a booklet to the different styles of baskets and lunch boxes built for motor car use. Each style is illustrated.



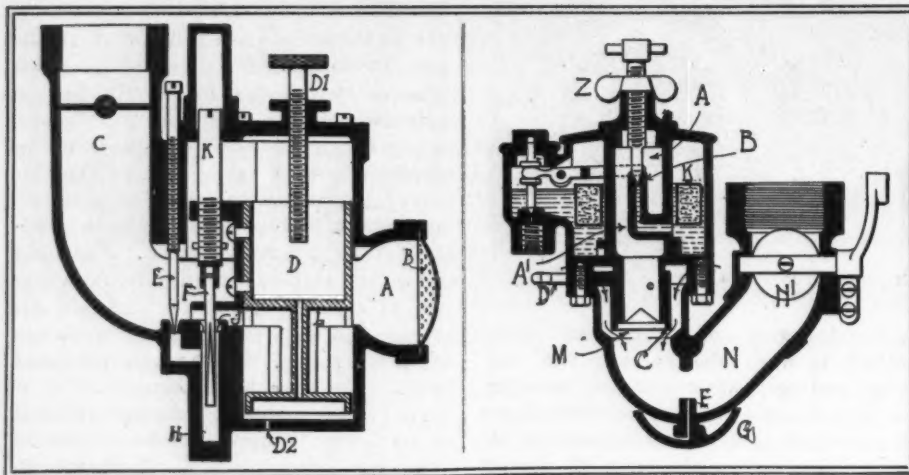
FRANKLIN ROADSTER

—NEW BODY STYLES—

MOON SPECIAL RUNABOUT



# Development Briefs



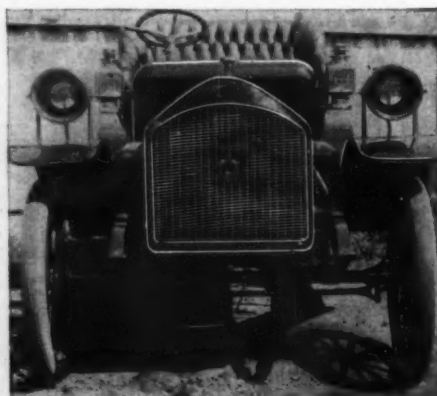
GREAT SCOTT CARBURETER

PALMBLA CARBURETER

## PALMBLA SYPHON CARBURETER

In the Palmbra syphon carbureter the gasoline is drawn out of the spraying nozzle into an airchamber by creating a partial vacuum in this chamber, the flow of air into the carbureter not passing anywhere near the nozzle, but passing by an opening in the chamber in which the nozzle is located. Because of drawing the gasoline out in this manner the carbureter is styled the syphon type in contradistinction to the accepted type of spraying nozzle in which a swift current of air hits the top of the nozzle and sucks out the gasoline. In the spray type the air current is made swifter by compelling it to pass through a restricted passage or choke tube, as it is often termed, and also by sloping the edges of this choked passage to compel a convergence of the air at the tip of the nozzle where the gasoline emerges. How the syphon system of the Palmbra is accomplished appears in the accompanying illustration in which B is the nozzle out of which the gasoline flows and A a vacuum chamber, the only opening out of which is by the lower passage A1. Past the lower end of this A1 tube enters the air as indicated by arrows M. The remainder of the air course is a V-shaped tube N, with its exit guarded by a butterfly throttle N1. The syphoning action is briefly as follows: The intrushing air current M passing the lower end of the vacuum tube A1 tends to pull a fraction of the air out of this tube, which reduces the pressure of the air. The air pressure in the float chamber K above the float is practically atmospheric, whereas that in the vacuum tube A being less, the gasoline rises in the nozzle B, drips over the edges, falls through the mouth part A1 of the vacuum chamber and strikes on a cone in the mouth of A1. Here it is broken up and drips off the edge of the cone into the intrushing air current M. It then passes

through the tube N to the motor. In the lowest part of the tube N is a short stand pipe F, which communicates with a basin G underneath the carbureter. This is a precaution for starting purposes. A tickler which is not shown, permits of gasoline overflowing the nozzle B and dripping past the cone F, thus fills in the lowest part of the pipe N until it overflows into the basin G. This shows enough tickling, after which the intrushing air passes over the surface E of gasoline in the bottom of the pipe N. The needle valve Z in the spraying nozzle is adjustable from the top and has a lock nut for the retention of the adjustment. To increase or decrease the friction pull of the gases M on the gas in the air chamber A, a sliding sleeve C is fitted over the lower end of the tube A1. By means of the handle D this sleeve can be raised or lowered. The more the sleeve is lowered, the smaller will be the passage for the air current M and consequently the greater pull on the air in the neck A1; whereas, with the sleeve C raised, there would be more space for the air currents, their speed will be less and the pull on the gas in the tube A1 less and consequently



NORTHERN CAR WITH LAMPS SUPPORTED ON FENDERS, IN ORDER TO RAISE THEM AND AVOID ROAD SHADOWS

less gasoline flows. By raising and lowering this sleeve a delicate regulation on the gasoline is possible. It is understood that opening the throttle creates faster air currents M, and of necessity the gasoline flow is faster. Apart from this syphoning principle the carbureter is conventional, with its concentric float.

## GREAT SCOTT CARBURETER

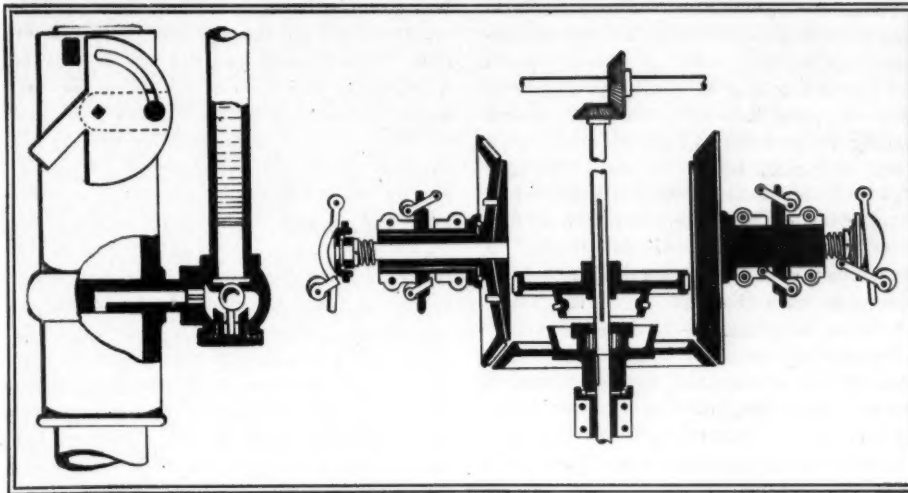
Manufactured by Scott & Sons Co., Medford, Mass., the Great Scott carbureter differs materially from others in that it has two spraying nozzles, one regulated by the needle valve E for low motor speeds, and the other controlled by the needle valve F for intermediate and high motor speeds. Air enters the passage A guarded by a screen B. For low speeds all of the air enters through the passage L over the nozzle guarded by the needle valve E and to the motor by the passage C. On higher motor speeds enough air cannot enter by passage L, consequently the motor pull or suction raises the air valve D, which increases the size of the passage L. But with more air is a call for more gasoline, and this is had by bringing into action the second nozzle guarded by the valve F. As the air valve D is raised the valve F is also raised by the connection shown in the illustration. The point of the valve F is tapered in proportion to the amount of increase in the passage L, so that the air and gasoline supply always harmonize. Should, for climatic or other reasons, this nicety of proportion between air and gasoline become upset, the height of the valve F is adjustable by the adjuster K which raises or lowers the valve in relation to the air valve D. Surrounding the needle valve F is a priming cup which fills with gasoline and contains enough to start the motor on. The limit of up movement on the air valve D is determined by the adjustment of the stopper rod D1, the lower end of which stops the upward movement of the valve. The opening D2 is to admit air beneath the valve D so that it may rise and fall regularly with the motor pull.

## SMALLER HARTFORDS MADE

Truffault Hartford Junior is the name of a small size of Hartford shock absorbers intended for light runabout cars, it being specially intended for such light runabouts as Maxwell, Mitchell, Reo, Atlas, Cadillac, Buick and Ford. Combined in it are all the essentials embodied in the larger Hartford, the only difference being a matter of size. The Hartford Suspension Co., of New York, maker of Hartford absorbers, has been considering the demand for absorbers in cars of this class and the company has brought the Junior out with the sole object of meeting such demand.



# Current Motor Car Patents



NEWBROUGH'S FLOATLESS CARBURETER

COOK'S FRICTION TRANSMISSION

**Friction Transmission**—No. 879,367, dated February 18; to J. H. Cook, Homer, Mich.—Rigid on the motor crankshaft is a wheel with a beveled periphery that can be contracted with the beveled peripheries of two friction disks carried on short cross shafts. The left disk is a one-piece affair, which can be shifted endwise on its shaft, whereas the right disk is a two-part affair, the beveled periphery being one part and the flat face another part, both being pinned to rotate together, but capable of independent endwise movement on their shafts. Between these disks is a longitudinal shaft with a sliding friction wheel, which wheel contacts with the disk surfaces for forward or reverse speeds, and also has on its front face the male part of a cone clutch corresponding with the female part on the friction wheel on the crankshaft, so that by engagement of them direct drive is obtained without any of the friction parts being used. The two-piece right disk is needed in that the beveled periphery part is moved inwards to grip with the beveled periphery of the crankshaft wheel. This done, the friction wheel between the disks has to be gripped, which is done by the flat portion.

**Friction Clutch**—No. 880,083, dated February 25; to E. Lehman, Marchienne-au-Pont, Bel.—On the crankshaft is a female cone part in the form of a hollow drum; on the forward end of the driven or transmission shaft is an expanding member—the male clutch part; and acting in conjunction with these two parts is a set of latches on the male part that enter corresponding teeth on the edge of the female drum, providing a positive lock when the clutch is engaged. The operation of the clutch calls for a couple of pedals, one controlling the expansion of the male part of the clutch and the other the operation of the locking latches. Interconnections are such that in

disengagement the latches are first released followed by the disengagement of the clutch parts. This is accomplished by a pawl on one of the pedals that is acted upon by the movement of the other pedal.

**Self-Retaining Nut**—No. 879,958, dated February 25; to S. F. Gutridge and J. F. Baker, Newark, O.—The threaded end of the bolt is continued beyond the thread in square cross-section; and on the outer face of the nut are four spring shanks that press on the four sides of the squared end of the bolt. The spring in the four shanks has to be overcome each time the nut is given a quarter turn.

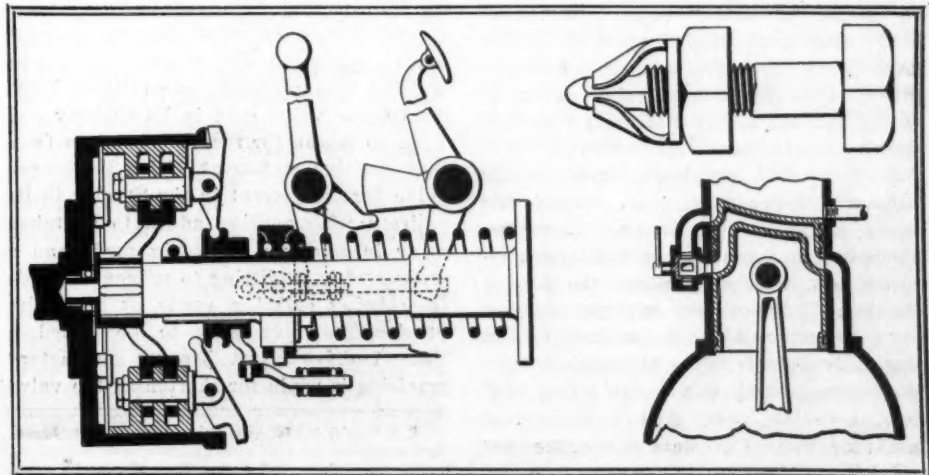
**Two-Cycle Motor**—No. 880,024, dated February 25; to J. D. Hay, Chicago, Ill.—In a two-cycle motor arrangements are contained for regulating the amount of gas passing from the crankcase through the piston and into the combustion chamber, the means combining a governor-controlled valve. In detail the arrangements consist of: A piston with a transverse tube in it which registers at one end with a port in the cylinder side through which mixture

comes from the crankcase through a by-pass in the cylinder wall; and at the opposite side with a short by-pass pipe in the cylinder wall which has a lower port registering with the transverse pipe of the piston. The governor-controlled valve is placed in this passage.

**Transmission Gearset**—No. 880,382, dated February 25; to C. R. Keith, Tarrytown, N. Y.—Combined in the gearset referred to are a drivingshaft, a driven shaft and a countershaft, the countershaft being to indirectly drive the driven shaft from the drivingshaft. The driving and driven shafts abutt end to end and power is delivered direct from one to the other by clutches.

**Floatless Carbureter**—No. 878,824, dated February 11; to W. H. Newbrough, Lansing, Mich.—The carbureter consists of two vertical pipes, one of large diameter forming the mixing chamber and the other of small diameter forming the gasoline system. The gasoline pipe is half the height of the other and delivers the gasoline into the mixing chamber pipe through a horizontal passage with a top orifice for a spraying nozzle. In the top of the gasoline pipe is an adjustable ball valve for regulating the gasoline flow; and in the bottom of the air pipe is an adjustable throttle valve.

**Metal Body Reinforcement**—No. 879,205, dated February 18; to H. and A. P. Smith, Springfield, Mass.—In connection with the side plates used in a metal motor car body is a sill or facing plate extending from the back of the forward seat to the front of the rear seat and forming a framework for the tonneau door. The edge of the side plate for the rear seat is turned inwards at the edge of the tonneau door and the stiffening plate is secured to this turned edge. This stiffening plate extends downwardly from the upper forward edge of the rear seat to the body sill.



LEHMANN'S CLUTCH—SELF-LOCKING NUT—HAY'S TWO-CYCLE MOTOR



# The Readers' Clearing House



## INTERMITTENT MISSING

Evansville, Ind.—Editor Motor Age—While I dislike to be continually asking questions, I find Motor Age, and the Readers' Clearing House in particular, so very helpful that I am taking the liberty of propounding a couple more that are puzzling me. I have a car equipped with a 35-horsepower Milwaukee engine, 1¼-inch Schebler carbureter, Splitdorf timer, Heinze coil and a governor that has developed two faults. Nearly every time the throttle is opened, even if only a little, the engine picks up lively for a few revolutions, then misses badly, sometimes not exploding a charge for several more revolutions, after which it gradually begins to hit first on one or two cylinders and finally on all four, and gives me no further trouble until the throttle is opened again. I find sometimes that retarding the spark immediately after opening the throttle will prevent, or at least alleviate the trouble, but not always. In this same connection, the engine often misses badly when the clutch is engaged at low speed when starting until the car gathers headway. I have tried different carbureter adjustments, looked for air leaks, etc., but without avail. Can you suggest any cause for the trouble? Could it be the governor, and, if so, what can be done to remedy it? The other trouble is a well-developed pound that neither I nor several garage men have been able to locate. It is noticeable all the time, and I fear will eventually cause bad damage to crankshaft or other parts. I am unable to state whether it comes from within the cylinder or crankcase and can find no loose bearings. One mechanic tells me it is caused by loose end thrust of the camshaft and is harmless, but I am inclined to doubt this, particularly the harmless part. Can you suggest any method of search that might locate the difficulty.—A. A. Brentano.

The description of the motor's behavior on opening the throttle suggests the possibility that the gasoline may be sucked from the float chamber to an abnormally low level before the float valve opens. It would be well to investigate for possible sticking of this valve. If the carbureter is one of the 1908 models, it is possible the automatic valve may stick, though this hardly seems likely. Evidently the trouble is due in some manner to sluggish response of the carbureter to throttle changes. It is not clear how the governor could be responsible, since even if it acts sluggishly its only effect could be to make the engine pick up slowly. In order, however, to settle that point decisively, it might be well to disconnect the governor and operate the throttle experimentally by the hand alone. The location of the pound

is about the most difficult thing possible to suggest without examining the engine. Occasionally a shaft bushing which appears to be well fitted is in reality fitted on the shaft only, and is loose in its seat. A connecting rod whose ends are offset, as is often the case, tends to wear its ends slightly bell-mouthed, owing to the unequal distribution of pressure from end to end of its bearings. When this has gone on to the extent of a few thousandths of an inch, each explosion will cause the upper and lower bearings of the rod to strike endwise in opposite directions against the piston bosses and cranks, thus producing a knock. The center of the crankpin bearing may not be worn enough to notice, and the only test is to take off the cylinder and see whether the rod will rock fore and aft on the crankpin. Occasionally an engine is inaccurately put together, and a cylinder forces or springs its connecting rod forward or back out of line, producing rapid wear and cutting with resulting pound. It is possible for a very loose piston to knock in its cylinder when the explosion comes. A camshaft may be loose in some particular bushing, or a bushing may be loose in its seat, or a valve-lifter may be loose in its guide so it jumps from side to side under the action of the cam and valve spring. A flywheel keyed on the shaft instead of being bolted to a flange will pound if the keys are loose. A crankshaft may have certain bearings properly tight and another loose, thereby permitting the shaft to spring in the loose bearing under the explosion pressure. It is next to impossible to be guided in hunting for a pound by anything but one's experience of the sounds produced by different causes. Occasionally one may help himself by the use of a phonograph or hearing on the principle of the stethoscope.

## VALVE GEAR QUESTION AGAIN

Sacramento, Cal.—Editor Motor Age—I cannot resist one more letter as regards my former statements. Quite an elaborate correction appears in the January 25 number in regard to the Stanley valve gear which I formerly said was a fully-equipped Stephenson valve gear in its entirety and I see no reason for receding one iota from that positive statement. The Stephenson valve gear is present in the Stanley in its entirety with nothing added to or taken away in any way, shape or form, and a process of hairsplitting to prevent a spade from being called a spade or an entire Stephenson valve gear to be called a "direct drive" just because no factory provision is made for shortening the valve

travel and consequent shortening of the steam cutoff to the cylinder is unreasonable. The Stanley engines are capable of a variable cutoff just the same as any steam locomotive that ever was built and fully 90 per cent of the Stanley owners run them at shortened valve travel. I cannot see by what process of reasoning a valve gear can change its name by any manner of its handling. By what process of intelligent reasoning could a cross compound mountain freight locomotive or battleship originally equipped at the Schenectady works with Stephenson valve gear be juggled out of its name or birthright just because a 3 per cent grade and excessively heavy tonnage requires full stroke or full valve travel over the entire division, the identical way the Stanley is worked according to the way C. F. M. states, viz.: full stroke. Furthermore, I wish to state as a positive fact, with plenty of corroborative testimony available to those who take the trouble to ask any locomotive engineer with any experience, that full valve stroke in a single expansion locomotive would ruin the finest Stephenson valve gear that ever existed if persisted in. This does not occur when the valve travel is shortened. Furthermore, regardless of the type of valve gear used it has nothing to do in any way with changing steam pressure that it works against. Last but not least, this Stanley valve proposition above is sadly strayed away from the entire statements C. F. M. made in the November 28, 1907, number. The original contention was that the "slide valves would stick at the high pressure used in motor car works," and then follows the statement by C. F. M. that as "Mr. Stanley does not use any of the accepted valve gears," etc. Now, I believe the White company uses 600 pounds pressure per square inch steam pressure and I think all will agree with me that this is fairly representative of the highest usual pressure used, and according to C. F. M. the Stephenson link motion would not handle the valves under this pressure except at full valve travel or full stroke, as it is called, which operation gracefully obliterates the name "Stephenson" to that of "direct drive." The fastest time ever made by a motor car was at Ormond beach with a Stanley steamer identical in every way with the car sold today. This car carried 1,200 pounds steam pressure per square inch and with the Stephenson valve gear, ruthlessly robbed of its alias of direct drive, cutting off steam at one-third stroke of the piston or in other words steam followed the piston approximately 2¼ inches of its travel out of a possible 6½-inch stroke. This statement regarding adjustable cutoff from Mr. Stanley personally. Verily this

**EDITOR'S NOTE**—In this department Motor Age answers free of charge questions regarding motor problems and opens its columns to a discussion of pertinent subjects. Correspondence is invited from subscribers and others.



Stephenson valve gear used on the Stanley car seems to approximate the proverbial leopard in changing in the way it can change its name by a very slight hand manipulation.—W. R. Harlan.

### HORSEPOWER IN SMALL CAR

Flemingsburg, Ky.—Editor Motor Age—I am building a motor car, and if it is not too much trouble I would be pleased to have the following questions answered by Motor Age: The car weighs 650 pounds. Would a V-type air-cooled engine with a  $3\frac{1}{4}$ -inch stroke and  $2\frac{1}{2}$ -inch bore have enough power? The engine is high-speed and could be geared low. If it was geared to 18 miles per hour on the level, which would be fast enough, would it pull an ordinary hill or high gear? What horsepower would you rate this engine?—Jesse Henderson.

The engine ought to give, on paper at least, about 4 horsepower at 2,000 revolutions per minute. It will, however, undoubtedly have to be cooled by a fan if run at that speed, since the car will not go more than half as fast as the motor cycle for which air-cooled motors of that size are generally intended. Assuming the transmission to be of 75 per cent efficiency, the motor will deliver 3 horsepower at the rear wheels. Assuming the weight of two passengers and all supplies, tools and extras, to be 450 pounds, the road resistance will be at least 40 pounds, and may be more if the wheels run on plain bearings. This resistance will absorb fully 2 horsepower at 18 miles an hour, which will leave only 1 horsepower available for overcoming wind resistance and grade. Of this the wind resistance at that speed will easily take  $\frac{1}{2}$  horsepower, leaving only  $\frac{1}{2}$  horsepower for grades. At this rate you will be able to manage a 1 per cent grade without slackening, and possibly about 3 per cent before you have to change to a lower gear. It must be borne in mind that any such calculations as these are necessarily somewhat theoretical in the absence of exact data as to the actual performance of the engine and the type of transmission employed.

### REGARDING TRANSMISSIONS

Vineland, N. J.—Editor Motor Age—Would Motor Age inform me what kind of transmission causes friction enough to diminish the power of the motor? State the transmission that causes the least friction, and the one that will endure a long run the best of the following: Shaft-drive single chain to the center of the axle, the double-chain drive, the friction drive, the turbine transmission and the electric transmission? I see from the results of the Chicago show that 76.7 per cent of the cars were shaft-drive. I would like to know the advantage of a shaft-drive car over other kinds of drive.—Russell Ellis.

Undoubtedly the most efficient transmission at present used in motor cars is the sliding gear system, and the least efficient is probably either the friction system or the three or four-speed planetary trans-

mission. The low efficiency of the planetary transmission, when more than two forward speed changes are provided for, is so well understood that practically all the cars now using the planetary system have but two forward speeds and reverse. Between the shaft drive, the side chain drive and the single chain drive to the center of the axle there is little to choose in point of efficiency, and the choice is determined mainly by other considerations, such as economy in first cost, repairs, ease of keeping clean, relative strength for equal weight, etc. The shaft-drive is easiest to protect from dirt, and the side chain drive is, at least for high powers, lightest in weight for equal strength. The single chain drive is neither light nor easily kept clean. Electrical transmission is not much used, on account of its considerable weight. So far as Motor Age knows, no turbine transmission is yet practical in a commercial sense.

### MORE ENGINE TROUBLE

Louisburg, Kan.—Editor Motor Age—Please tell me how to remedy my engine, which is a  $4\frac{1}{4}$  by  $4\frac{1}{4}$  double-opposed four-cycle motor. It has been missing off and on for a year, and never has given the power it should at all times. Sometimes it runs fairly well for a while, then it misses again. I have done everything in my power to find the trouble. It makes no difference if my batteries are new or old. I took off the exhaust pipe to see which cylinder was missing and found the front one spitting a stream of fire, sometimes 8 inches long, sometimes hitting and again missing, while the other one worked fine—quick and sharp.—C. C. Williar.

There are a good many things that may cause the missing, and each item will have to be investigated in order to make sure it is right. The spark plug may be short-circuited inside; test this by trying a new plug. The cable from the coil to the plug may have a weak spot in the insulation, permitting sparks to jump through to the engine or some metal part. The trembler contacts of the coil may be burnt or rough, so a poor contact is made; or the trembler contact screw may be screwed down too much or too little. Short-circuiting the timer connection for that cylinder should cause the trembler to give a nice, clear, even buzz. It is barely possible, but not probable, that a condenser inside the coil box is punctured, or that a secondary winding of the coil short-circuits. The former will give a weak spark with bad flashing at the trembler. The latter will give a weak spark without such flashing. The primary wire from the timer to the spark coil of the missing cylinder may have a loose connection, or it may be broken somewhere inside the insulation, so it makes contact frequently from the vibration of the engine. Perhaps the most likely thing is that the contact segment inside the timer itself is rough, so the roller or contact finger does not establish contact for that cylinder as soon as it should. Clean

the timer thoroughly and examine the contacts to see they are true and bright, and that contact is made at the same position of the piston in each cylinder. A rough or worn contact or rough insulation between the contacts will cause the contact finger to jump when the engine runs fast. If a thorough investigation of the ignition fails to locate the trouble, examine the inlet and exhaust valves, and see that they seat properly, do not leak, do not stick and have springs of the same tension as those of the cylinder which works properly.

### USE OF CORK INSERTS

Chicago—Editor Motor Age—Please tell me through the Readers' Clearing House why cork inserts are used on the clutch of the Thomas Flyer and if leather would answer the same purpose.—R. W.

It is a peculiarity of cork as a frictional material that it has a greater coefficient of friction, or, as it may otherwise be described, a greater cling to a smooth surface than leather, or, in fact, almost any other material, while at the same time it wears more slowly than rubber and does not abrade the surface against which it rubs. Furthermore, the cork is yielding, and it is therefore easy to establish perfect contact throughout any number of cork inserts. Moreover, this property of cork is not affected by oil or water, which is not the case with leather. The usual theory is that the cork inserts, by projecting slightly beyond the face of the clutch proper, take hold first and permit a more gradual engagement than can otherwise be obtained. When the full pressure of the clutch spring is exerted, the corks are pressed into their sockets and the metal surface surrounding them comes into engagement also.

### ROAD RACES IN 1908

Hartford, Conn.—Editor Motor Age—I wish information as to the prominent motor car races in 1908, especially as to the names of the contestants in the different events. Is there any publication giving a list of these events?—A. L. Hughes.

Motor Age published the entries for the Briarelliff cup race in Westchester county, N. Y., in the issue of February 6. Last week it published the French grand prix list. A study of the Coming Events column furnishes desired information concerning the dates of these races and information as to the entries can be had by reading Motor Age each week.

### BENNETT CUP RACES

Wilmington, Del.—Editor Motor Age—Kindly tell me through the Readers' Clearing House how many Gordon Bennett cup races were held, who was the winner of each and what was the make of car the winner drove.—C. C. Kurtz.

Six Bennett cup races were run and won as follows: 1900, Charron, France, Panhard; 1901, Girardot, France, Panhard; 1902, Edge, England, Napier; 1903, Jenatzy, Germany, Mercedes; 1904, Thery, France, Brasier; 1905, Thery, France.



DENVER OMNIBUS AND CAB CO. GARAGE

**Enlarging Its Quarters**—Taking advantage of the present dull spell the Autolight and Motor Supply Co. at 506-508 North Broad street, Philadelphia, is erecting a large addition to its establishment.

**Needs More Room**—Owing to a large increase in its business the Autolight and Motor Supply Co., 506-8 North Broad street, Philadelphia, recently has been compelled to erect a large addition to its building.

**Root a Dorris Agent**—The Chicago agency for the Dorris has been taken by Charles P. Root, who will run it in connection with the Truscott boat agency at 431 Wabash avenue. It is probable Mr. Root will join the colony on Michigan avenue before spring.

**Secures Wildwood Garage**—I. L. Brown, of the Brown Auto Top Co., of Philadelphia, who recently established a huge repair shop at the Belmont garage in West Philadelphia, has just acquired the Wildwood, N. J., garage. Wildwood has become quite a summer resort for motorists and the club located there came into the limelight last year and the year before by promoting successful meets.

**Hoosiers Will Organize**—A movement is on foot to organize a dealers' association in Indianapolis, and such a step likely will be taken following the second annual show, which will be held there March 23-28. There is a very friendly feeling among dealers of the city, but there has never been a permanent organization. Whenever there is anything of special interest concerning all dealers, a temporary

organization usually is effected. It is believed steps for the permanent organization will be taken at the banquet which will close the show March 28.

**Wrong Cuts Used**—Thomas B. Jeffery & Co. state they made a mistake in their advertisement in Motor Age last week by using two cuts of the "Rambler Way" of securing straight line drive. This week the proper illustrations showing both ways are used.

**Block Goes to Philadelphia**—Louis C. Block has been appointed to succeed F. C. Vanderhoof as manager of the Philadelphia branch of the Ford company. Mr. Block has been long associated with the Ford Buffalo branch in a similar capacity. Arrangements are in progress for an early removal of the Philadelphia branch from its present quarters at Broad and Buttonwood streets to a new building now in course of erection at Broad and Vine streets in that city.

**Engineers to Meet at Boston**—The quarterly meeting of the Society of Automobile Engineers will be held at Boston during the course of the show there. It will be opened on Tuesday evening by the reading of a paper on electrical ignition by J. O. Heinze, at the Massachusetts Institute of Technology. The following morning at 9:30 the members will rendezvous at the headquarters of the Bay State Automobile Association, where a number of cars will be waiting to convey them to Lowell, Mass. Lunch will be served at the Lowell Country Club, and immediately following this the members will pay a visit of inspection to the laboratory and factory of the Heinze Electrical Co. A dinner will be held at the headquarters of the Bay State Automobile Association, and this will be followed by the regular meeting and the reading of papers. Among the subjects on which papers have been prepared are: "Perfecting Automobile Ignition," by J. O. Heinze; "Design of Automobile Crankshafts," by P. M. Heldt; "Heavy Goods Transportation Systems," by Joseph A. Anglada; "Automobile Forgings," by Richard W. Funk, and "A Year's Use of Denatured Alcohol," by Thomas L. White. The reading of the papers will be followed by a discussion of the points brought out by the different authors in the course of their papers, and

in this the members of the Bay State Automobile Association, which includes quite a few engineers in its ranks, have been invited to join.

**Sackett with Matheson**—L. J. Sackett has accepted a position of special representative for the Matheson Motor Car Co., of Wilkes-Barre, Pa.

**Kings Use Gabriels**—It is pointed out that European royalty has taken up the Gabriel horn, Emperor William of Germany, King Edward of England, King Alfonso of Spain, the czar of Italy and Queen Margherita of Italy being among the users. Prince Henry of Prussia gave a Gabriel to the kaiser for a birthday present, it is said.

**Additions to Quaker Row**—The latest additions to Philadelphia's motor family are the Earl, the local agency for which has just been acquired by the Delancey garage, Art McKeever, manager, at the northwest corner of Twenty-second and Pine streets, and the Allen-Kingston, to be represented by Harry A. Rowan, Jr., & Co., 2028 Sansom street.

**Receiver for Weber**—The Orlando F. Weber Co., of Chicago, agent for the Pope-Toledo, last week went into the hands of a receiver on a petition filed to have the concern declared an involuntary bankrupt. The American Trust and Savings Bank is the receiver and it states no schedule of assets and liabilities has been filed, the assets depending upon what the receivers can get out of the stock and the sale of the lease. It is said the failure is not a very bad one.

**Garages Well Patronized**—Garages in Indianapolis are filled almost to the overflowing point with cars left for winter storage. The number stored this winter is greater than for 2 or 3 years, part of which is possibly due to the general plan to economize during the recent financial troubles. Garages are having no difficulty in getting the following storage rates: Small runabouts, \$4 per month; touring cars, \$5 per month; six-cylinder cars, \$6 per month. All cars are covered with canvas and wheels jacked up off of floor.

**Rochester's Show**—Every space is taken for the Rochester show, to be held March 18-21, inclusive. Owing to the large number of applications for space since the last bit was sold the management is making arrangements for more space in the foyer and basement. Every inch of the main floor is taken up with cars, while the large platform, built for the accessories in the balcony, is crowded to its limit. All committee rooms are being used for exhibition purposes. The new convention hall where the show is to be held is rapidly nearing completion, and will be in readiness for the opening night. The fifteen dealers of the city will exhibit as will the two manufacturers, the Gearless and the Selden. The accessories, motor boats and motor cycles exhibitors will all be local dealers, making it entirely local. The color scheme will



be green and white, with an electrical display of nearly 15,000 lights. The Fifty-fourth regiment band will furnish music each afternoon and evening, with a parade preceding each performance.

**Bradford at Walla Walla**—J. R. Bradford, formerly of the advertising department of the National Cash Register Co., Dayton, O., is now connected with the Inland Auto Co., Walla Walla, Wash., as advertising manager and salesman.

**Witherbee Moves Factory**—For the past 3 years the factory and main offices of the Witherbee Ignition Co., manufacturer of Witherbee batteries and Wico specialties, has been located at 541 West Forty-third street New York, but it has decided to move into the Motor Mart building at 1876 Broadway. In its new location the Witherbee company will have more than 8,000 square feet of floor space. The general offices and salesroom will face Broadway, while the factory and recharging station will be in the rear of the building.

**Stoddard-Dayton Statement**—The Dayton Motor Car Co., whose plant at Dayton, O., was damaged by fire recently, has issued the following statement over the signature of Vice-President C. G. Stoddard: "Despite our statements to the contrary and despite the actual facts we are daily having brought to our attention rumors to the effect that because of our recent fire 'We will likely wind up our business,' 'We are badly crippled,' 'We will not be able to resume shipments for several months,' etc., etc. In justice to ourselves, our agents and all other interested parties, we desire to call attention to the following facts—actual, proveable facts: Estimated loss, \$100,000, fully covered by insurance; floor space of entire plant, 400,000 square feet; affected by fire, 23,000 square feet; number of departments affected by fire—upholstering and final assembling—two; time lost, 2 days; loss of time in shipments, 10 days. The fire occurred Thursday night, February 20. Friday and Saturday following the entire plant was shut down except the foundry. Monday morning following a full force was at work in all departments except the two affected by the fire. The upholstering and final assembling departments moved into the company's warehouse, and these departments started work Tuesday, the 25th instant. Shipments were resumed actively the week commencing March 2. The Dayton Motor Car Co. will push its business more actively than ever. It is as strong financially and every other way as ever. It has over 250 actual, bona fide orders with specifications for quick delivery. It has brighter prospects than ever. It has a world of enthusiasm in its organization and unbounded faith in its own future. The above, as stated, are actual facts, and despite malicious rumors emanating from competitors' agents and salesmen, we can and cheerfully will prove these facts to anyone wanting to be shown. We take

pleasure in acknowledging that competing manufacturers, and the trade generally, have shown a most sympathetic spirit and have tendered generous and genuine offers of help."

**Waltham Branch in Chicago**—The Waltham Mfg. Co. has established a branch store at 433 Wabash avenue, Chicago, to take over the agency held for some years by J. H. Toole. P. F. Minnock, of the Waltham factory, has been appointed local manager. Toole has entered the service of the White company.

**Maine's Best Show Effort**—The best show Maine has ever seen closed its doors at Portland Saturday night after a week of record-breaking attendance. The armory, where the show was held, had been admirably decorated, and the cars shown were all the newer models. For a small show it was well worth seeing. There are now a large number of agencies in Portland, and the dealers all had their cars there. From Boston a number of agents came and stayed nearly the entire week, helping out the local men.

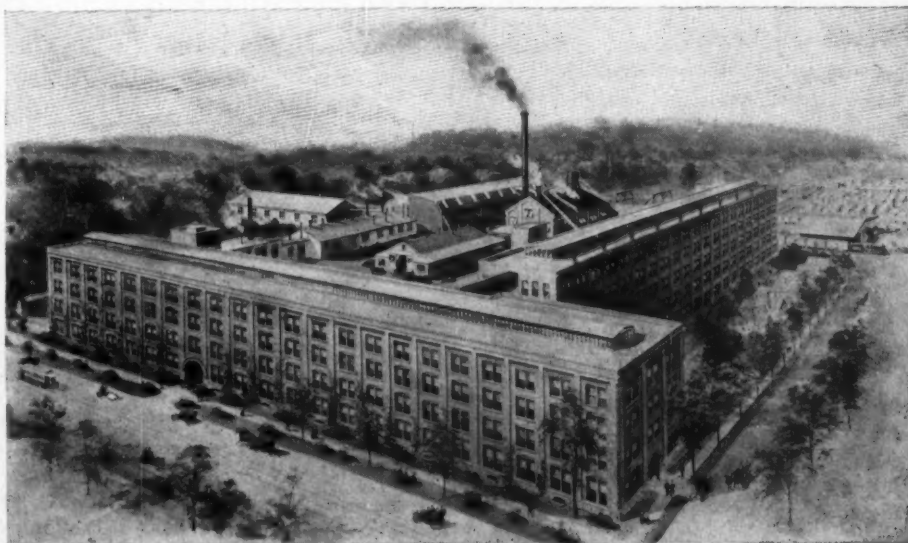
**Denver's \$100,000 Garage**—The Denver Omnibus and Cab Co., controlling the horse vehicle business of Denver, has fallen in line with the advanced mode of transportation and erected a four-story with basement building to accommodate the increasing number of Denver motor car owners. This building is known as the motor car department of the company. It is on a lot 50 by 125 feet, and the construction is thoroughly fireproof. The cemented basement is the storage room for parts and materials for all standard makes of cars. The front of the first floor is the show room for the Berliet, Pennsylvania and Blomstrom gasoline cars and the Detroit electric, for which the company is agent. Over half of this floor is used for storage of customers' cars, in the center of it being a huge turntable. In the rear is an elevator. The second floor is given up principally for storage space, a good-sized room being reserved for the con-

venience of customers' chauffeurs. On the third floor is the machine shop, a tire-repairing department and departments for the woodworkers and blacksmiths. The fourth floor is occupied by painters and trimmers. The building has cost \$100,000.

**Some New Cartercar Agents**—R. A. Palmer, secretary of the Motorecar company, builder of the Cartercar, states the factory is running with full force now. Agencies are being closed rapidly, some of those signing contracts during the past week being as follows: Smith, Clemens & Hopping, Dayton, O.; Knowles & Roland, Demming, N. M.; Parker & Heugerbaugh, Ashtabula, O.; Indianapolis Auto Co., Indianapolis, Ind.; Naperville garage, Naperville, Ill.; Johnson's Automobile Co., Boone, Ia.

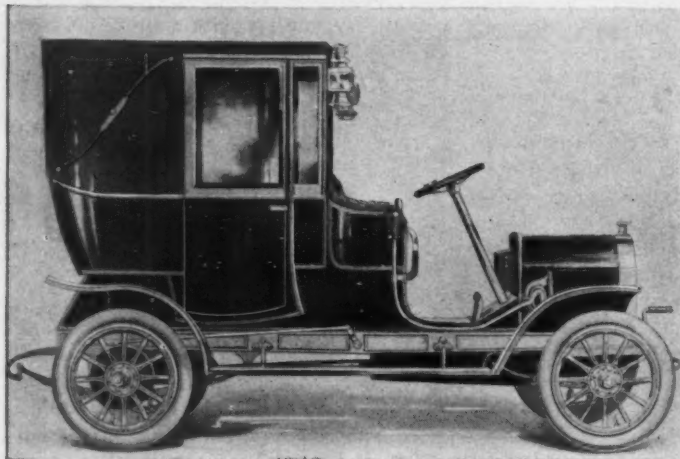
**Columbia Men Find Jobs**—Frank A. Brezina, formerly assistant purchasing agent of the Electric Vehicle Co., of Hartford, Conn., has accepted a position as purchasing agent of the Timken Roller Bearing Co., of Canton, O. John A. Crittenden, manager of the repair department of the Electrical Vehicle Co., has joined the Studebaker forces. He formerly was connected with the Washington Electric Vehicle Transportation Co., of Washington, D. C., the last of the subsidiary companies of the Hartford concern.

**Roberts Using Diamonds**—For the ninth time a car equipped with Diamond tires is crossing the American continent, for those pneumatics are fitted to the Thomas Flyer being driven in the New York-Paris race by Montague Roberts. The tire equipment of the Thomas car is 36 by 4-inch front and 36 by 5 rear Diamond wrapped tread tires of quick detachable type, fitted to Marsh rims. The car carries an extra tire of each size and four extra tubes of each size, but from New York to Chicago only one tire change was made, and that was due to a puncture, it is said. The original tires were still in excellent condition when the car left Chicago. Roberts also is using Wico spark plugs.



FRANKLIN PLANT AT SYRACUSE, SHOWING RECENT ADDITIONS

# Taxicabs at Sixes and Sevens



ATLAS TWO-CYCLE TWO-CYLINDER TAXICAB



RENAULT TWO-CYLINDER TAXICAB IN NEW YORK

**A**MERICA is experiencing at present an avalanche of taxicabs. The chemist would describe the situation as a most pronounced precipitation; but whether it is an avalanche or a precipitation the fact remains that throughout the country many makers are bringing out small-sized landaulets which go by the more up-to-date name of taxicabs. Readers must not confuse the term taxicab as meaning only a motor cab fitted with a taximeter for measuring distance and charging fare. Few of the American cars are so fitted, but are, nevertheless, excellently suited for cab work in cities and towns, even if not fitted with the taximeter instrument.

Baltimore will enter the field by April 1. The cabs for its initial service are being secured by Howard Gill and A. Stanley Zell, president and secretary, respectively, of the Motor Car Co., whose intention it is to institute a regular service in the Monumental city. The type of machine to be used is the landaulet style, the Thomas machine being selected. This cab has been described in Motor Age and is characterized by a four-cylinder motor cast en bloc, with transmission of the rear axle and having other unique designs. The cab is a special design, intended solely for city work and seats four on the inside and one beside the driver.

Some time ago the Atlas company, of Springfield, Mass., announced the completion of an Atlas two-cylinder two-cycle taxicab, an illustration of which appears on this page. Owing to the use of a two-cycle engine with thermo-syphon circulation, the company considers the design well adapted for the taxi field. The car, like the Thomas, has a seating capacity of six, including the driver—four inside and two out. In the 22-horsepower motor are only five moving parts, the only reciprocating

ones being two pistons and two connecting rods. Ignition is by jump spark, with current from dry cells, storage battery, or magneto as desired. A multiple disk clutch is used. The car is shaft-driven, has a wood frame reinforced with steel angles, an aluminum body and uses hardened ground and polished shafts in the transmission, together with Hess-Bright and bronze bearings.

The Franklin taxicab is a special body on a chassis containing the 16-horsepower four-cylinder air-cooled Franklin motor. One of the particularly interesting features of this cab, and which shows its adaptation for the taxi field, is the use of a wheelbase measuring but 92 inches in length, a measurement ideally suited for city traffic, and one which permits of maneuvering in crowded streets with the utmost facility. Not alone is the wheelbase the only appealing feature, for the weight, which is but 1,850 pounds, is such as to make the wear on tires slight, and thereby considerably assists in reducing the operating expenses of the vehicle. This company has brought out another style of car, termed a town car, and which while not designed for the taxi field, very much resembles the taxi cab, except it has a limousine instead of a landaulet body. The

lines of the dash and a few other parts savor of foreign lines.

But the taxicab realm is not all to the gasoline machines, for last week was seen on the streets of Buffalo for the first time a new chassis of the kind to be built for the Babcock electric taxicab now in course of manufacture by the Babcock company, of Buffalo. This chassis differs radically in some respects from those used heretofore on the company's electric pleasure vehicles. The motor is suspended under the center of the chassis and drives through a propellershaft to the rear axle to which it is delivered by a worm and screw drive. Engineer Peck, the designer, claims to have reduced the friction loss by this construction. The electric current used is furnished by forty-two cells of Babcock battery, control of the current being by means of a wheel on the steering column underneath the steering wheel.

Boston, which for a long time considered itself immune from the taxicab fever, developed particularly strong symptoms toward the middle of January, but the first cab did not make its actual appearance until January 27. The cabs to be operated in the city are identical with those now in use in New York, and the understanding is that they are being operated by a company which is subsidiary to the New York concern. Already permits for location and approval of rates to be charged have been filed with Police Commissioner O'Meara, and until such are acted upon by the city, the operation of the cars will be held in abeyance. Not a little uneasiness was noted in the aristocratic circles, due to the fact that the first car seen on the streets was a second-hand Darracq, and the upper circles immediately began wondering if the Hub was to be the dumping ground for second-hand taxicabs from New York.

## FOR TWO-PASSENGER VEHICLE

Initial charge, which pays for first ¼ mile or first 18 minutes' waiting, or fraction of either.....\$0.80  
Each additional ¼ mile, or each additional 6 minutes waiting, thereafter ..... .10

## EXTRAS

Trunk .....\$0.20  
For ordering cab, each mile or fraction thereof, from stand or station to point ordered..... .20  
Ferry and bridge tolls paid by passenger.



All dangers of such have, however, disappeared. New Darraq cars have arrived, and Boston is to have an up-to-date outfit.

Before March 15 taxicabs are expected to be in full operation in Philadelphia, at least fifty of these economy rigs being looked for on the streets of the city by that date. The business will be handled by the Philadelphia Taxicab Co., a \$200,000 capitalization under the management of President Joseph Kleckner and Secretary-Treasurer L. T. Layton, both of whom are busy making final arrangements for the launching of this fleet of vehicles. For a time the efforts of the company will be confined to railroad stations and the leading hotels, after which the business will extend to the business and residential sections as conditions demand. The streets of Philadelphia are particularly well suited for taxicab service, and it is expected that the progress of these cabs will be exceptionally rapid.

The taxi fever has not spread as rapidly through Chicago as was anticipated a month ago when the first Thomas cab arrived, and at which time announcement was made of the organization of a rival company that was to put upward of a score of cars on the streets within a few months. Few cities are better suited for taxicab service than Chicago, because of its six big railway depots, all of which are scattered around the loop district and between which and the hotels a cab service of this nature will prove particularly suitable. It is true the streets on the loop district in which these cabs operate, are not the best, but it also must be borne in mind that owing to the congestion of traffic, speeds will be materially reduced and the wear and tear on the cabs because of the street surface correspondingly ameliorated.

In New York, on the other hand, the taxicab business is increasing in leaps and bounds. So great is the demand for them that in a few years the city will equal London or Paris in the completeness of the system. The foreign cab got in first and has the lion's share of the trade. This is to be regretted, but the transportation companies operating the cabs are not to be

FOR FOUR-PASSENGER VEHICLE	
Tariff No. 1, one or two passengers:	
Initial charge, which pays for first 1/2 mile or first 12 minutes of waiting, or fraction of either.....	\$0.30
Each additional 1/2 mile or each additional 4 minutes' waiting, thereafter.....	.10
Tariff No. 2, three, four or five passengers:	
Initial charge, which pays for first 1/2 mile, or first 12 minutes waiting, or fraction of either.....	\$0.30
Each 1-6 mile, or each 4 minutes' waiting, thereafter.....	.10
Extras same as in two-passenger vehicle.	

blamed for purchasing foreign vehicles, as American taxicabs could not be had at the time the companies were started. Since then, however, the American cab has made its appearance, but the managers of the companies do not wish to experiment with untried vehicles, asserting that the foreign machines they are using have been in service for several years on the streets of continental cities and are tried quantities, having been specially designed for the work, whereas many of the American cabs are but standard chassis with a special taxi body attached. While this reference is true in the case of some of the American taxicabs, it does not apply to all of them and it is a healthy sign of the times to note that the majority of the American makers are not falling into the error of thinking a taxicab can be made from a touring chassis with nothing more done than a shortening of the wheelbase. The fact is the taxicab fills an entirely different field; it is essentially a medium-speed vehicle, one made as light as possible, and one in which simplicity and fool-proof construction are combined wherever possible.

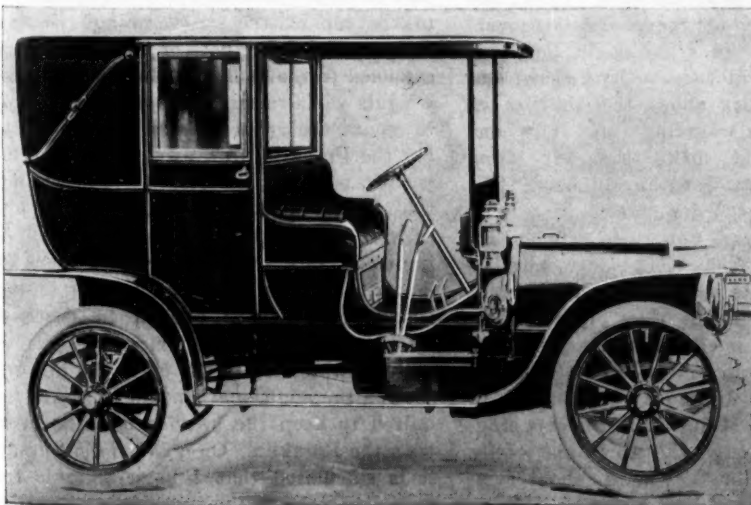
In the foreign cab accessibility of parts has been made a cardinal issue, as has the demountability of all parts likely to give trouble. One or two French makes are on the streets with a power plant so carried that in 15 minutes it can be dropped out of place and another substituted. The advent of the demountable rim and the spare wheel has considerably widened its sphere of usefulness, in that the possibility of being held up because of tire repairs had

practically ceased for street work now.

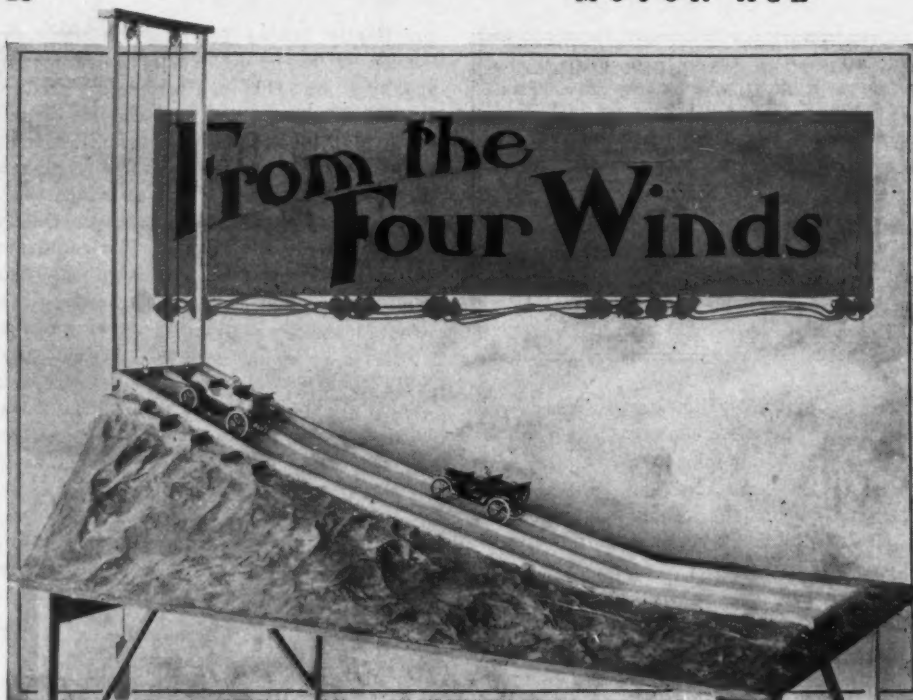
One of the New York companies in speaking on this matter said: "Tire trouble does not exist. By this we do not mean that the pneumatic tires never wear out; far from it. They are the most uncertain portion of the cab, yet we watch them so carefully that blowouts practically never occur on the streets. We could not afford to have our cabs tied up on Fifth avenue or some other street to repair a tire. Not only would it tend to show a weakness in the system, but it would discourage business. If a tire looks weak, it is changed before the cab leaves in the morning. Our policy is prevention rather than cure, and we have discovered that it is easier and quicker to change a tire in the garage than on the street. Of course, accidents will happen and when a puncture occurs a spare rim can be attached in less than 3 minutes so should the cab be on a depot trip there is no danger of missing the train because of tire troubles."

A fleet of suburban electric taxicabs has been started in the outskirts of Berlin which charge a higher fare than the gasoline taxicabs within the city proper, but supply a class of travelers which is glad of the service at the additional price. The operators are introducing the ticket book system which can be compared with the commutation ticket card used on steam railroads between big cities and their many suburbs. Big reductions in fare are offered by these books, and the traveling public like them better than the ordinary pay-as-you-leave type of taxicab. It is expected other suburban sections will imitate Berlin's example.

Two motor bus lines are to be established soon in northern Ohio. One will be on the well-known road from Warren, the county seat of Trumbull county, to Cortland, 8 miles. A company of Warren capitalists is behind the venture and expects to have a fine line of buses in operation by April 1 in opposition to the one-car train the Erie sends up and down the road once a day. The other line will be from Norwalk, O., to New London, O., 20 miles. It will be for passenger and delivery service



LANDAULET TAXICAB—TWO NEW FRANKLIN STYLES—LIMOUSINE TOWN CAR



FRANKLIN METHOD OF DEMONSTRATING THE IMPORTANCE OF LIGHT WEIGHT

**Mean Business**—Despite the fun being poked at the many promoters of phantom motor race tracks, the managers of the proposed oval at Wildwood-by-the-Sea, N. J., assert they only await the advent of open weather to begin work.

**Another Military Stunt**—Official dispatch stunts are becoming quite popular as a means of keeping public interest on the qui vive. Manager A. J. King, of the Philadelphia Studebaker branch, having found it impossible to induce any of his fellow-tradesmen to accept his deft for a Philadelphia-Savannah race, has decided to deliver an important dispatch from Admiral Pendleton, of the League Island navy yard, to Captain Taussig, commandant at the Norfolk, Va., navy yard. Afterward he will push on to Savannah by the shortest route. The start will be made next Wednesday, with the veteran Frank Yerger at the wheel.

**New Feature in Route Book**—The route book of the 1908 A. A. A. tour and Glidden trophy contest will contain a list of the rates guaranteed for this year by hotels and garages in various states. The getting of these rates, under a guarantee that they will not be raised, is one of the most important pieces of preliminary work done by the A. A. A. touring board in connection with the annual tour. It originated with Chairman F. B. Hower last summer. Printed forms have been prepared, which hotelkeepers fill in, giving their prices for a room for one person and two persons, with and without a bathroom, and American-plan hotels quote the price of these accommodations with supper and breakfast. Garages are required to quote their rates for storage over night, with and without washing and polishing. In all cases the hotel or garage proprietor must explicitly guarantee the rates quoted to all members of the A. A. A. during 1908.

The several states from which these guaranteed rates are now being filed are: New York, Pennsylvania, Ohio, Indiana, Connecticut, Rhode Island and Massachusetts. Other states will be covered later.

**Demand a Boulevard**—Members of the Automobile Club of Maryland put themselves on record as being in favor of building the Baltimore and Washington boulevard, which project was started 2 years ago, but which was not completed because of a lack of the necessary money. A bill was introduced in the Maryland legislature during the week urging a sufficient appropriation to complete the work, and was favorably reported in the house of delegates. A delegation of members of the club, together with motorists from other sections of the state, went before the legislature and made a strong appeal in favor of the bill.

**Wins Bet on Maxwells**—Two Maxwell cars made a creditable run from Boston to Portland last week to decide a wager of \$200 made between F. J. Tyler, the Boston manager of the Maxwell branch, and Joel Dowling, a dealer in Portland. Mr. Tyler was at the Portland show, and had an argument about the abilities of Maxwell cars, wagering that any one of them could make the trip from Boston to Portland within 10 hours. To decide it Lucius Tyler started in a four-cylinder and Ralph Coburn in a two-cylinder runabout last Wednesday morning with the bonnets sealed. The roads were in bad shape, and as they proceeded toward Maine the conditions grew worse. The motorists ran into a snow storm and there were ruts 15 and 18 inches deep in the highways in Maine. But the cars staggered along through the storm and easily beat the time limit. The runabout completed the distance in 7 hours 59 minutes and the touring car did it in 7 hours 3 min-

utes. This was the actual running time for both cars. The distance traveled was about 130 miles. A few days previously Kenneth M. Blake drove over the road in a Locomobile and he completed the run in 5 hours 40 minutes.

**Another Economy Run**—The contest committee of the Quaker City Motor Club, of Philadelphia, has been impressed with the value of the recent economy test of the Long Island Club and has decided to promote a similar contest. The affair is scheduled for Saturday, April 4, and the route will be announced next week.

**Hazards of Motoring**—The motorist is a fair risk for the insurance companies, according to statistics that have just been compiled by Medical Director J. W. Fisher, of the Northwestern Mutual Life Insurance Co., of Milwaukee. Of 551 deaths upon which claims were paid by the company in the last 4 years, only seventeen were due to motor car accidents, and only sixteen of these were occupants of the cars. It was reported recently from the east that insurance companies were to make special rates for motor car owners because of the supposed great risk incurred by them. According to the statistics of Mr. Fisher, deaths were far more numerous in many lines of industry and from various causes. In the same period there were thirty-eight deaths caused by horses or in runaways. Steam railroads killed ninety-five and electric roads took off eighteen. Twenty were killed by machinery.

**Weight in Hill-Climbing**—One of the most novel exhibits at the recent Franklin Syracuse show was the ingenious device to illustrate the importance of light weight in motor car construction. It consisted of a model with two parallel runways, each having a 25 per cent grade. Two small motor cars, weighing about a pound or a pound and a half apiece, the lighter one to represent a Franklin and the other a heavy car of the same carrying capacity, were placed at the foot of the runways, their respective weights being in the proportion of 2,000 to 3,000 pounds. To the front axle of each was attached a string leading to the top of the structure and passing over a pulley. Weights of equal size were attached to the ends of these cords. These weights when released caused the machines to mount the grade. Both started evenly, but the Franklin drew away from its competitor, which finally stopped part way up the grade and ran back, while the Franklin ran on to the top. These weights, being equal, represented the same amount of power, and illustrated how weight in the water-cooled car is alleged to decrease its net ability. Adding more weights to pull the water-cooled car up to the hill top showed the additional amount of power required to keep the heavier machine even with the Franklin. On a 25 per cent grade it is calculated that 1 horsepower is required to move 100 pounds of weight at 15 miles per hour, frictional resistance being



negligible. The 2,000-pound Franklin car would therefore require 20 horsepower, while the 3,000-pound car would take 30 horsepower to climb the hill. The apparatus is to be displayed at the Franklin branch houses in New York, Boston and Chicago, it is announced.

**Hill-Climb Possible**—President John Coghlin, of the Worcester A. C., of Worcester, Mass., stated a few days ago he had a conference with the members of the club and it was the unanimous opinion that the Dead Horse hill-climb could be revived and run off this year even if the bill now before the legislature allowing such events does not become a law. Just how he proposed to get around the law he did not state, but he said he had conferred with authorities, who told him it would be possible to do so, and the club is now planning to go ahead with the affair. No date has been set for it.

**Another Motor Corps**—With a view to organizing in Maryland a military and militia motor corps, the Automobile Club of Maryland at its meeting passed a resolution indorsing the idea. The club at once offered its service to the United States government and to the state of Maryland for carrying dispatches and transporting officers during times of trouble. To start with, there will be twenty cars for the organization of such a corps. In the event of war these machines will always be at the disposal of the army officers, while in case of riots or other state troubles the state militia would press them into immediate service. In order to test the practicability of the movement the club will get up a run. Officers of the regular army and the state militia will be invited to accompany the members of the club. The destination will rest with these officers. An effort will be made to secure a message from Mayor Mahool, of Baltimore, to the mayor of whatever city may be selected as the destination for the purpose of adding realism.

**Franklin in Tough Run**—The first car to go over the route of the Jacksonville-Miami course after the Cleveland Pathfinder was a 28-horsepower Franklin, driven by L. V. Jurgensmeyer, of Palm Beach, Fla. On this route of 400 miles, much of which had never before been traversed by a motor car, through sand, brush, logs and water that at times came nearly to the floor of the car, the machine forced its way. "We forded twenty-six lakes," says Jurgensmeyer. "The entire distance of water gone through was something over 6 miles. Each body of water over 100 feet across was measured and a record kept, but the bodies of water under that width were not counted, as they were too numerous. No one can imagine how many stumps and trees we had to run over on Monday and Tuesday. Every one of the entire crew had an ax and all of us used them. On this trip I never saw a fence or a house. What I did see were pine trees as green and heavy with foliage

as our maples are in July, with moss hanging all over them. The sand road is almost covered with the kind of palms from which they make palm leaf fans. Where it is low enough to keep damp it is packed and makes a fine track, but on higher ground it is dry and loose and a tough pull. My car was in perfect condition when we pulled in."

**More Good Roads Bills**—Two good roads bills are before the Maryland legislature. The one introduced in the senate by Senator Biddison, of Baltimore county, provides for an unpaid commission of six persons. The governor, who is designated as chairman, is authorized to appoint five others. The road system is not to exceed 1,000 miles, and the construction in each county each year shall be based upon the mileage apportioned to that county. The bill provides that \$250,000 shall be spent in 1908, \$750,000 in 1909 and \$1,000,000 annually in 1910, 1911, 1912 and 1913. There is to be a \$5,000,000 bond issue, to be known as the highway loan. The other bill presented in the house by Delegate Benson provides for a state loan of \$5,000,000 and an increase in the state tax rate of 2 cents, beginning in 1909. Baltimore city is to pay one-half of this loan, but will not receive a cent for improved streets. The construction of the highways is transferred from the State Geological and Economic Highways to a commission to be appointed by and including the governor.

**Will Aid Tourists**—American motorists in Great Britain and on the continent will this year have the advantages of a new organization, which will facilitate their travels in a very pronounced degree. This organization is provided by the establishment in London, at 166 Piccadilly, and under the auspices of Lord Montagu, of Beaulieu, of British headquarters of the great French body, the Association Générale Automobile of France. This British branch has organized the United Kingdom in a most thorough and efficient manner; it has the advantage in France of the association's organization, and, further, it coöperates with The Car's touring and information bureau, which has a network of agents all over the world. It will now be possible for those Americans, either bringing their own cars or hiring them here, to be met on arrival at any of the chief English ports by accredited agents with tours mapped out according to their requirements, either specified in advance or at the time. The necessary licenses will be obtained for them on payment of merely the official charges; they will be guided through the country and passed across the continent from one country to another without any further trouble over the customs duties. The shipping of their cars will be effected across the English channel by various routes and can be arranged, if desired, from New York. Apart from the usual official charges in Great Britain, which is \$32; in France, \$12.50, and in other countries, \$2, it will be necessary

for the motorist to pay \$25, which includes membership of the Association Générale Automobile, to the secretary of the British headquarters of the body, who will undertake everything, even to the hiring of the car, if desired by those making the continental tour.

**Quaker Club Moves**—The Quaker City Motor Club, of Philadelphia, announces arrangements have been made to transfer the club's quarters from the Majestic, which is too far uptown, to the Walton, at Broad and Locust streets. Three large second-floor rooms have been secured, facing on Locust street; these are being fitted up for the club's use, and are in readiness for the next monthly meeting tonight, when an open house and reception will be in order. The Quaker City club is showing a rapid growth and in its new quarters ought to keep up its rapid pace and grow some more.

**Studying Road Variations**—The Acme Spring Check Co. is contemplating experiments in Long Island, New Jersey, and on the streets of New York city, in an effort to get evidence of the real condition of the streets of the metropolis. An automatic register is to be attached to one of the Shocsorbers with which a 2,700-pound car is equipped and by means of a ribbon, fed by clock-work, the relative variation in the road bed in the various sections traversed will be accurately recorded. The plan is to take certain of the most widely used thoroughfares in Manhattan and for a given number of miles there and in Brooklyn and Newark to take readings of the irregularities in the paving. An attempt will be made to test the streets in the three cities under as near normal conditions as possible. That is, no streets having ice-hummocks or paving blocks will be selected for the test, but the average run of streets will be taken. Then the results of the test will be published.

**Truck to the Rescue**—When the rain and slush were at their worst in New York recently crowds of cheering pedestrians, forgetting the soak, clogged the Broadway sidewalks near Twenty-ninth street to witness a rare spectacle. Horses were sprawling and falling all over the street. It was one of those greasy thaws, when the four feet of a horse have no advantage over the two feet of man. It would have been difficult for a centipede to get along. A giant Studebaker motor truck wheeled suddenly into Broadway, the driver having orders to go to the rescue of any fallen horses. Its operations were a sight to behold. Cable tows were thrown out here, there and everywhere. The fallen equines were jerked to their feet and helped along with their loads. If they refused to pull, the Studebaker truck lengthened its cable tow and took along lock, stock and barrel. A splendid pair of discouraged dapple-gray Normandies, weighing about 2,000 pounds apiece, were forced to get into the car and take a ride, while the enormous truck which had stalled them followed behind.



# Legal Lights and Side Lights



## RULES ON ROAD REPAIRING

The full bench of the Massachusetts supreme court handed down a decision the other day that is of much importance to motorists and town officials. If it is accepted by judges in other states it will result in decisions against the users of motor cars in many cases. William C. Doherty was driving a motor car through the town of Ayer one evening, when he came across a place where a street railway company was laying tracks and had torn up the highway. In going past his car sank in sand to a depth of 8 or 10 inches and stuck. When he put on more power to get out the chain snapped, stalling him and causing some damage to the car. Mr. Doherty sued the town and the judge in the superior court, in his charge to the jury, said a motor car was a carriage within the meaning of the law, and it was the duty of the defendant town to keep its roads reasonably safe and convenient for motor cars so they might be protected. Mr. Doherty was allowed \$100 damages by the jury. The town officials appealed on exceptions to the supreme court, and now the latter has decided the judge's charge was too broad and sustains the town's exceptions, holding that a highway need not be kept in such condition that motor cars can be safely driven over them, provided they are safe for ordinary travel. The supreme court also adds that if a person is operating a car without a license he cannot hold a city or town liable for damages, even if the road is defective for ordinary travel.

## BAY STATE LEGISLATION

The Massachusetts legislature's committee on roads and bridges recently gave a hearing to the motorists on several bills. The most important were two on vehicles carrying lights at night. Last year a similar bill was buried in the committee. This year the motorists put up a better front and there were representatives from nearly a dozen motor organizations on hand when the committee opened its first hearing. There was much said in favor of the bills, and figures were produced showing that most of the motor accidents occurred at night and the majority of them were the result of other vehicles not having any lights so they were not seen in time to prevent collisions. It was shown that many other states have such legislation and that the scheme is universal abroad. It was pointed out also that under existing laws the entire responsibility for avoiding accidents is now placed on the motorists. There was no opposition to the bills this year, and the committee seemed to be in favor of adopting some of them. The other bills considered were one to have all the motor laws of the state codified; another to re-

quire cars from other states use two numbers, one front and one rear, as provided by the Massachusetts law for its own cars, and a bill relating to investigations of accidents. There are a few more bills to be heard, the most important being to allow hill-climbs in the state.

## FRAME A HOOSIER LAW

The Commercial Club of Indianapolis has taken up a movement which may lead to the enactment of an ordinance regulating and licensing motor car drivers of the city. A conference will be held soon with the city authorities, which doubtless will result in an ordinance being introduced at an early session of the council. It is planned to have an ordinance that will compel all drivers to obtain a license. There are about 800 cars in the city, and it is believed the license fee would be sufficient to permit of the hiring of some one to conduct the test of efficiency. The following has been adopted by the board of directors of the club: "We believe that measures should be taken to prevent the operation of motor cars by habitual drunkards and small children, and, believing that the public needs protection against such dangers; therefore, we respectfully recommend to the mayor and other city authorities the desirability of passing ordinances such as exist in other cities, providing against the operation of motor cars by all persons except those receiving license therefor, and that no such license shall be granted to children under 17 years of age or to an habitual drunkard, and such ordinance should further provide for the cancellation of any such license where the person holding same shall be convicted of drunkenness or disorderly conduct or of having violated the speed ordinance."

## POLICE COURTESY ABUSED

Reckless motorists in Pittsburg are likely to be shown the rough hand by Superintendent of Police Thomas A. McQuaide. Instead of allowing them to call at police stations when complaints have been made against them, he is going to use the strong arm of the law to bring them in. He has been informed that drivers have been abusing the courtesy which the police department has extended to them, and he has told all his officers to get busy and drive in law-breaking drivers like they would other prisoners. The motorists meantime are taking these letters of warning as a joke, and many of them have had the letters framed and hung them up in their offices as so-called diplomas. However, those motorists who appreciate the courtesy shown by the police are inclined to frown on such levity and are assuring the authorities of their hearty co-operation.

## TAGS FOR THE PITTSBURGERS

City Treasurer John F. Steele, of Pittsburg, has startled motorists by enforcing an ordinance which was passed in March, 1905. He construes the ordinance to mean that every vehicle license tag should be displayed on the rear of a motor car. Heretofore the city only required a small vehicle license plate to be placed anywhere on the vehicle. Usually it was tacked on the dashboard or on the windshield. Many hold that the city treasurer is violating the state law enacted in April, 1905, which provides that a car shall display nothing except the state license on the rear of the car. As the city license tag is not of any other state the words "any other place" might be construed to mean any other place in the state. Evidently the city treasurer thinks it means any other place outside of the state. The city ordinance provides every vehicle shall display in a prominent place on the rear of the car a license plate with a license number to be furnished by the city treasurer. This year this ordinance will be enforced literally. The city's fiscal year began February 1 and that is the time when vehicle licenses are taken out. From March 1 all motorists must pay a tax of 50 cents. Many Pittsburgers are now carrying the two licenses tacked on their cars in the rear. The state license tag is large, and is on a yellow background, with black letters, and contains "Penna, 1908," and also the license number. For a two-seated car the city license tag is on a slate background, with white letters with the words "Pitts, 1908," and the number in white. On the runabouts a blue background with white letters is used. Two kinds of city tags are used, so an officer may know that the blue tag indicates a one-seated car for which a \$6 license fee is needed, and the slate-colored tag, a two-seated vehicle, for which the license fee is \$10. By the city ordinance the vehicle is taxed, while the driver himself must pay his tax to the state. Attorney E. J. Kent, of the Automobile Club of Pittsburg, insists the city treasurer is justified in having both tags on the rear of the motor cars.

## MORE RESTRICTIONS

A bill introduced at Albany, N. Y., by Assemblyman Bashford, of Columbia county, N. Y., would compel the driver of a motor car to stop, look and listen when anyone holds up his hand. The bill also declares when the signal is made by a man leading a horse the approaching motorist must stop as long as necessary and that 100 feet from the horse the motor car must turn to the right of the road and when passing must go no faster than a mile in 4 minutes. The measure has a 24-hour imprisonment clause for violations and a fine.